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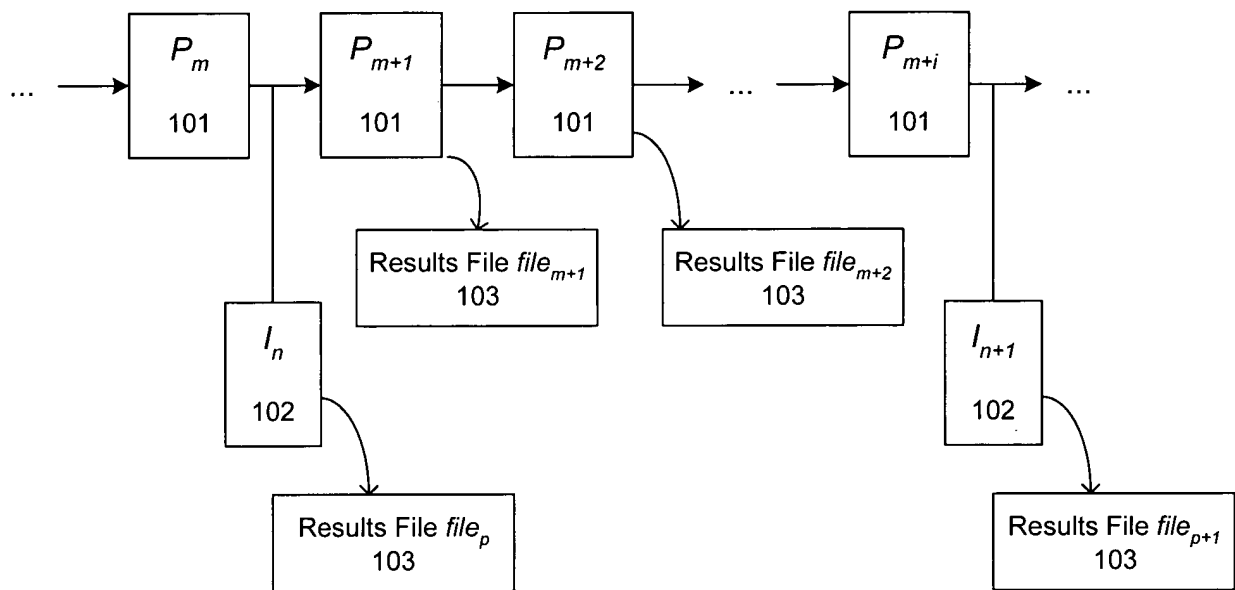


Figure 1

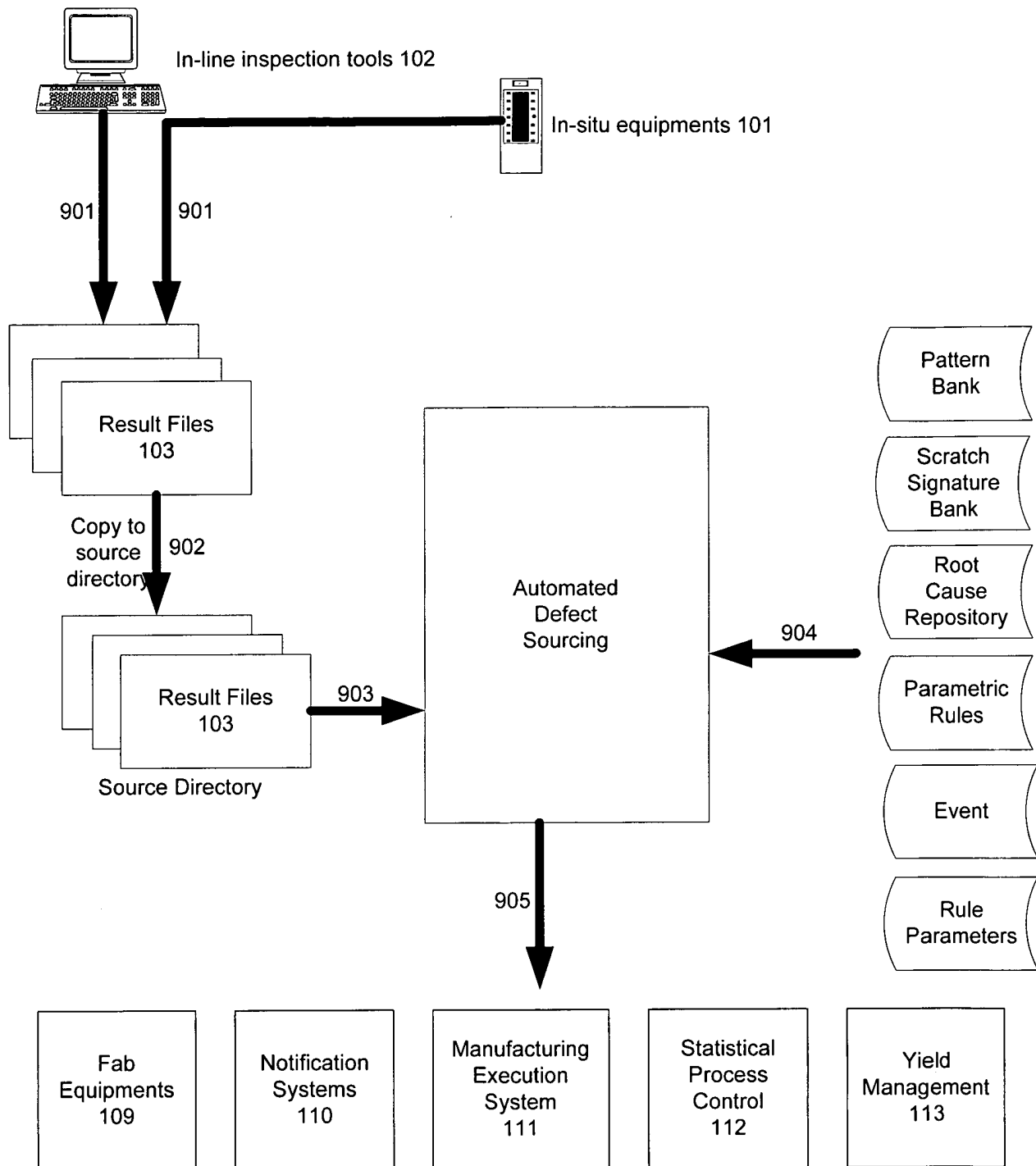


Figure 1a

000
Automated Defect Sourcing Method

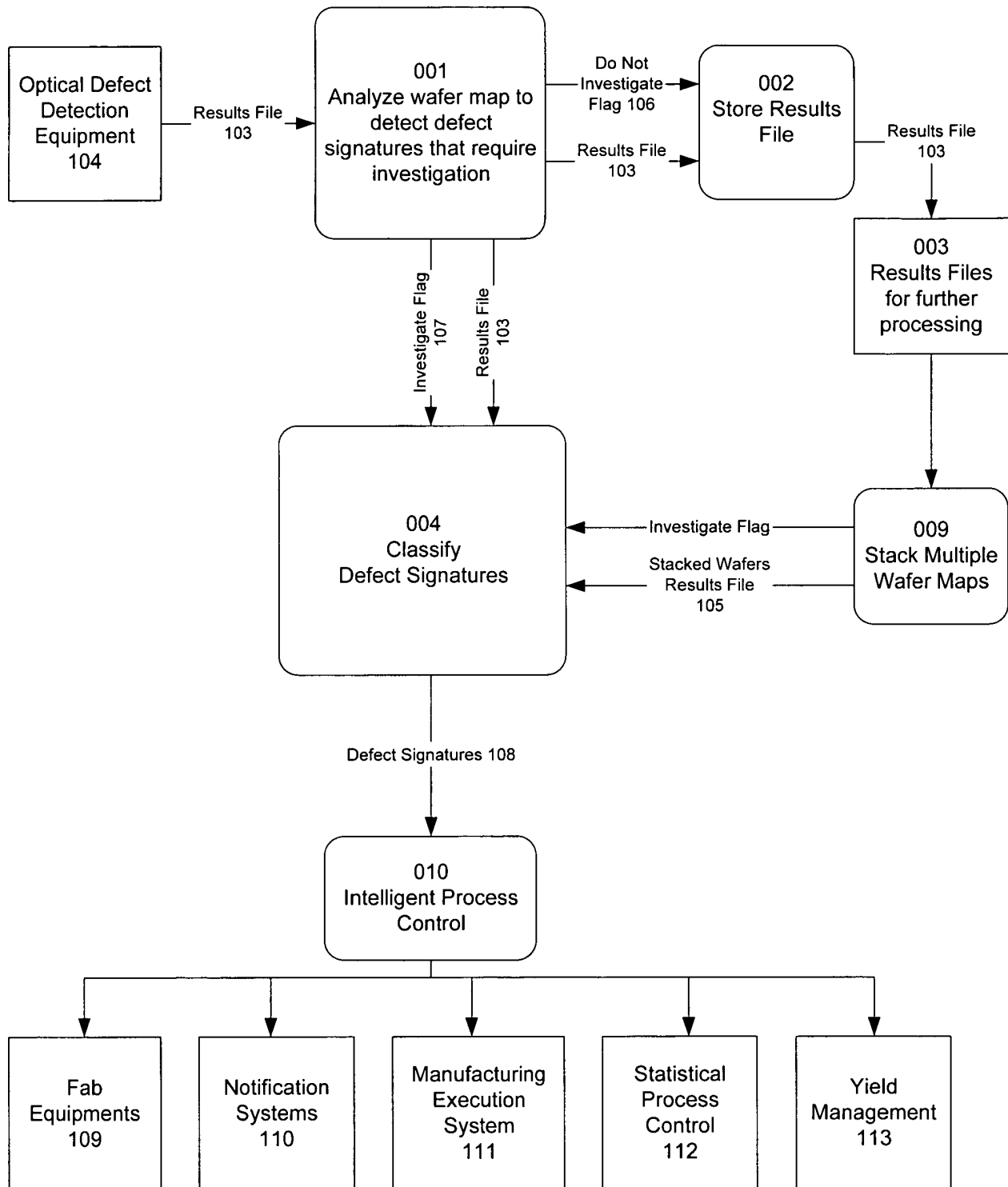
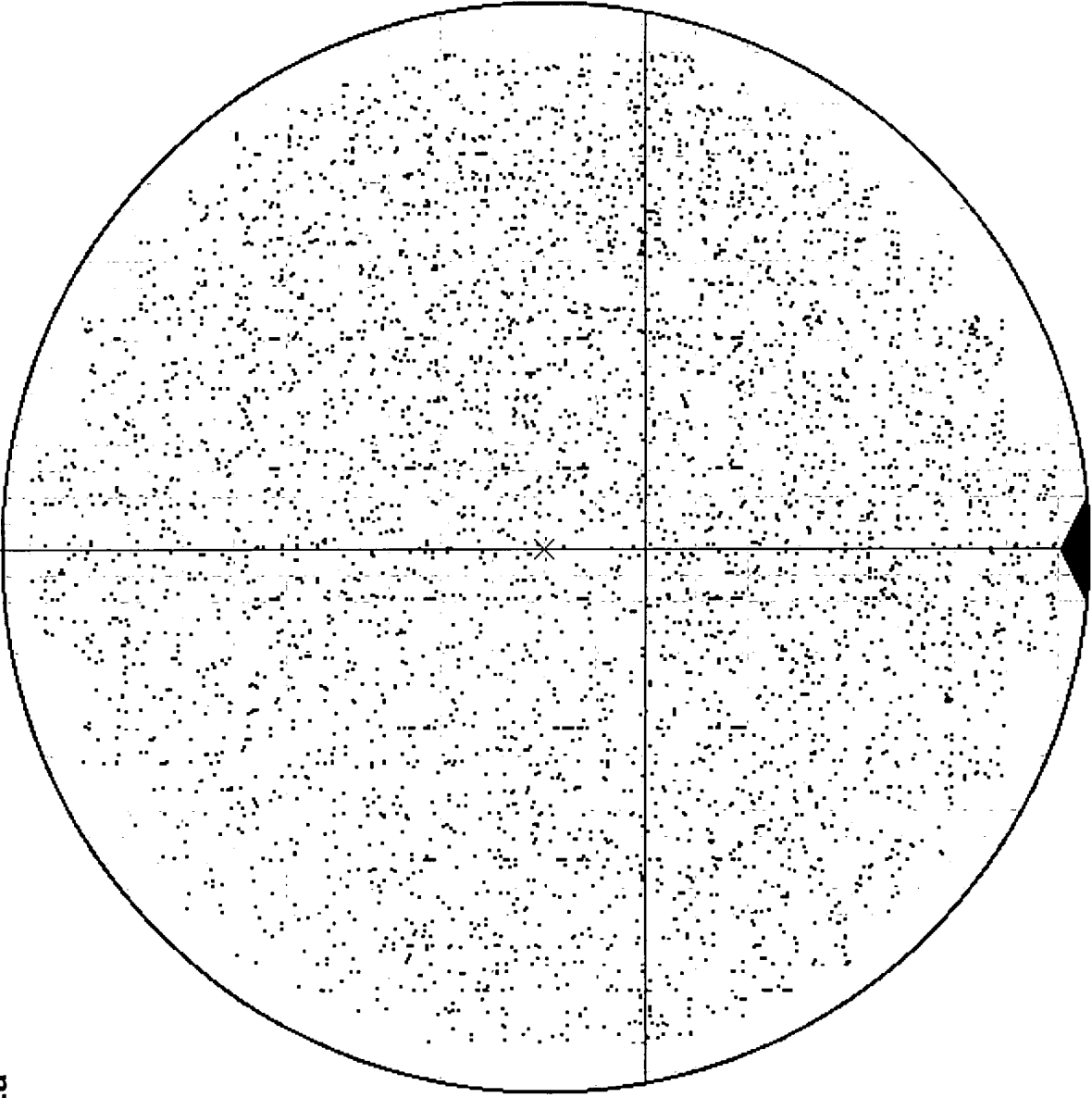


Figure 2

Figure 2a



001
Method to Detect Defect Patterns That Require Investigation

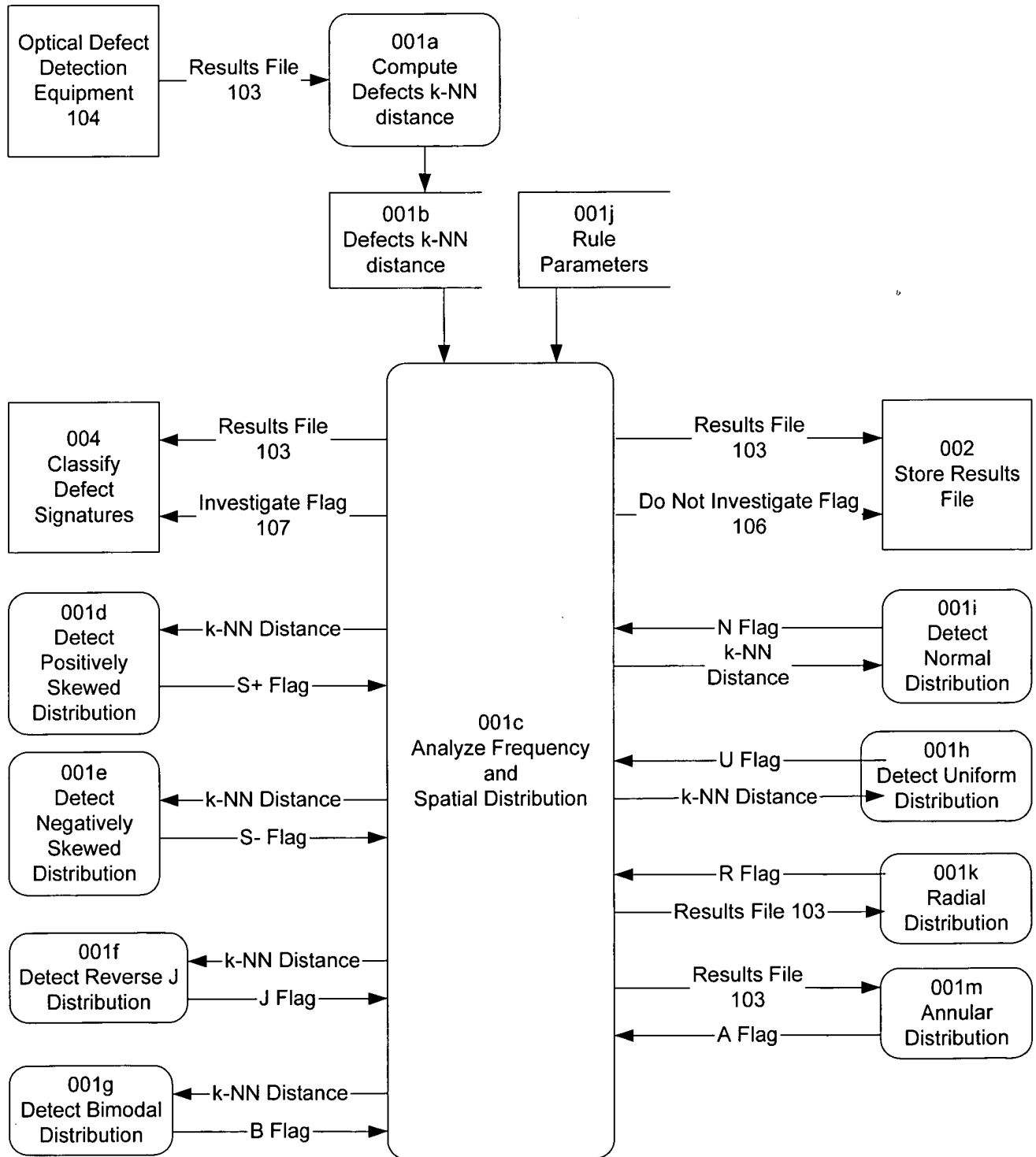


Figure 3

Relative Neighbor Nearest Distance Histogram (k=1)

Figure 3a

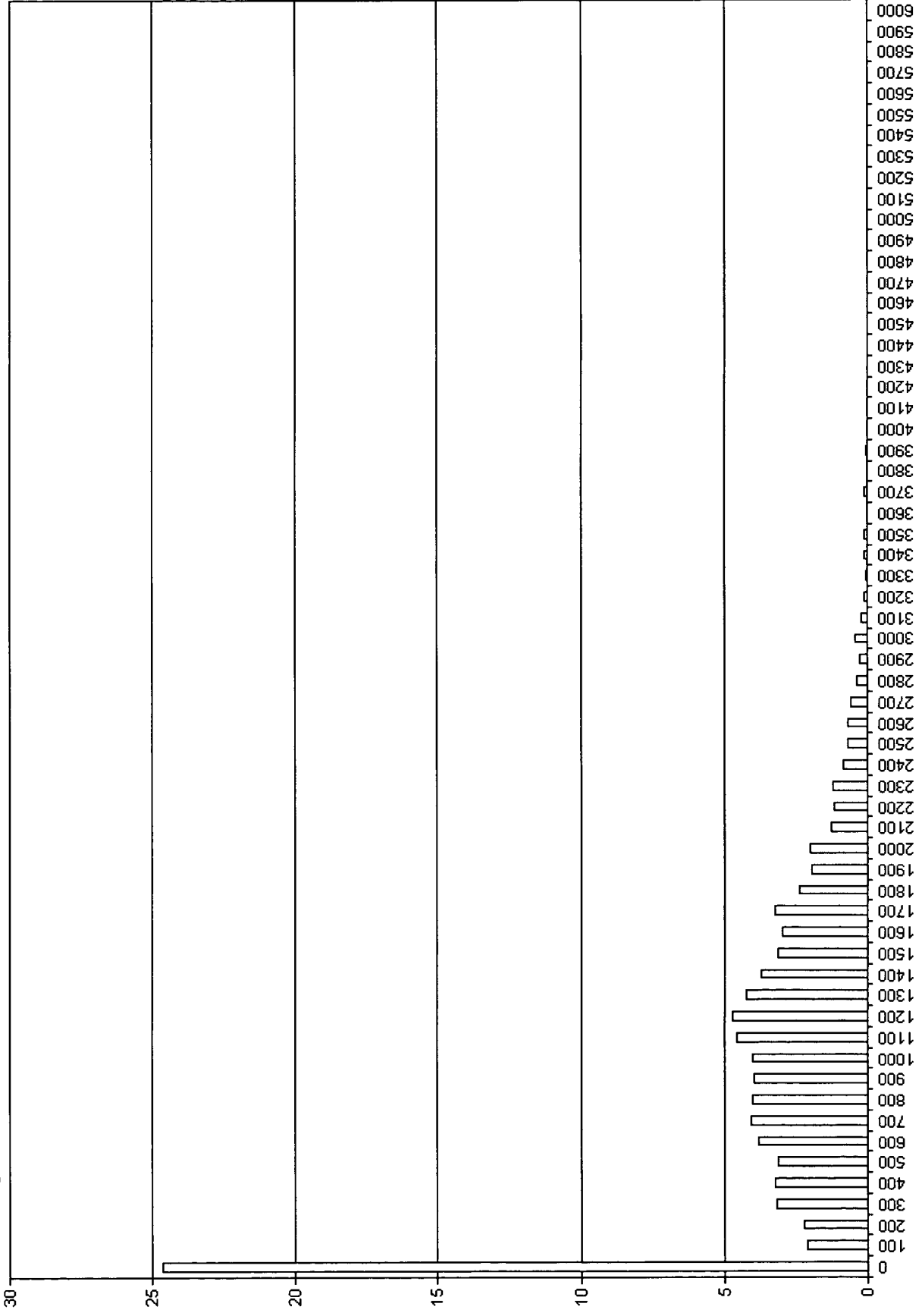
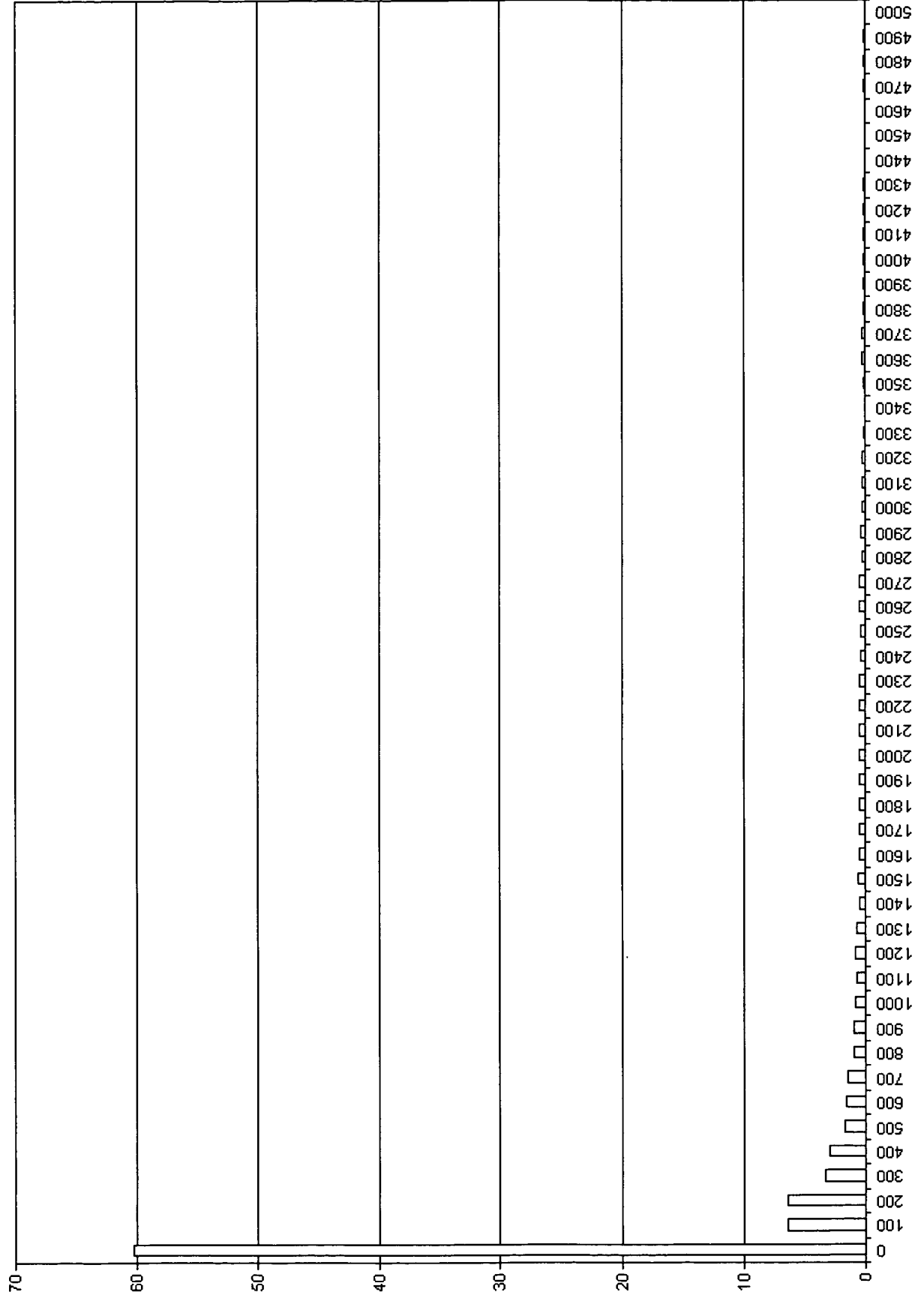
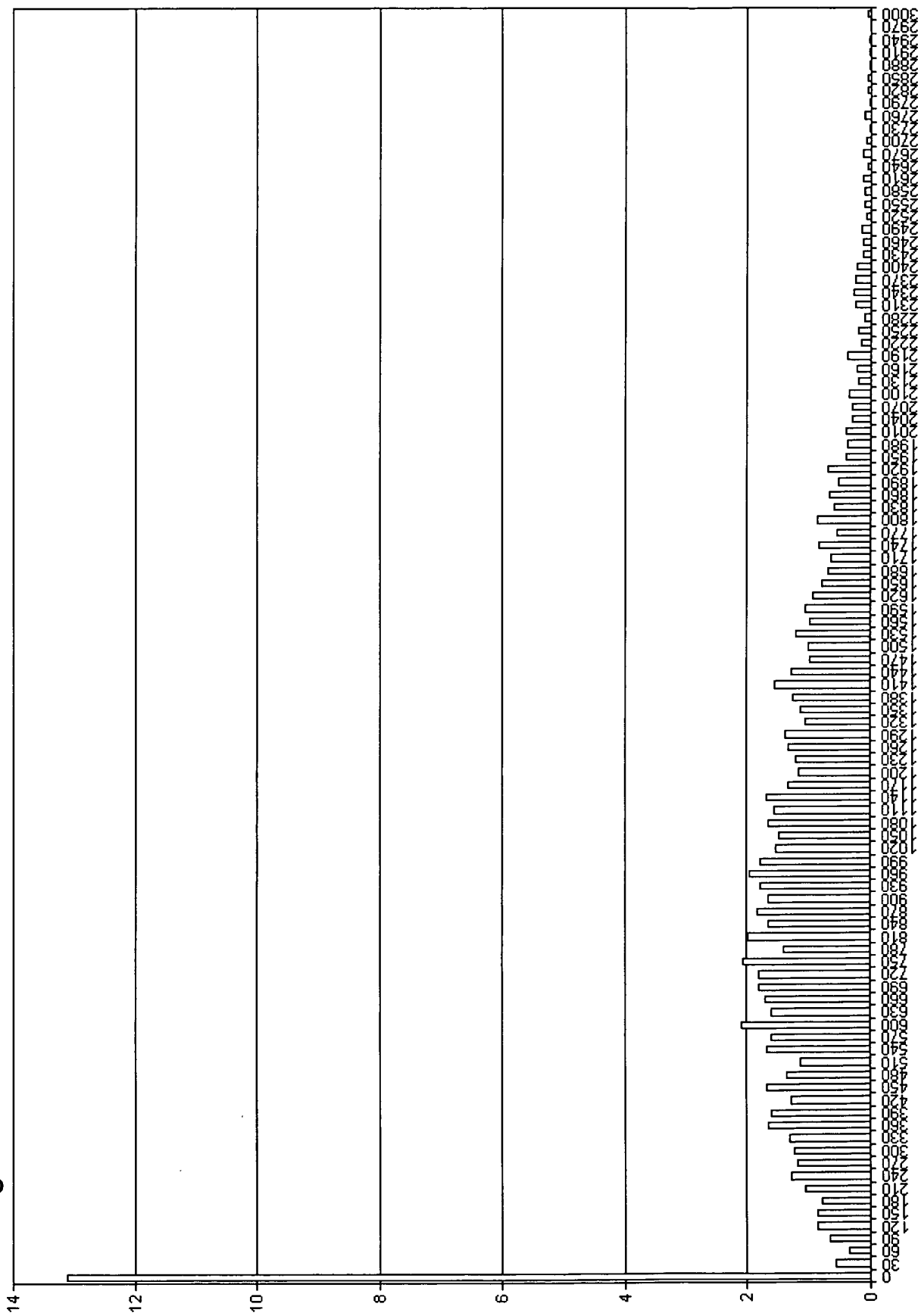


Figure 3b Relative Neighbor Nearest Distance Histogram ($k=1$)



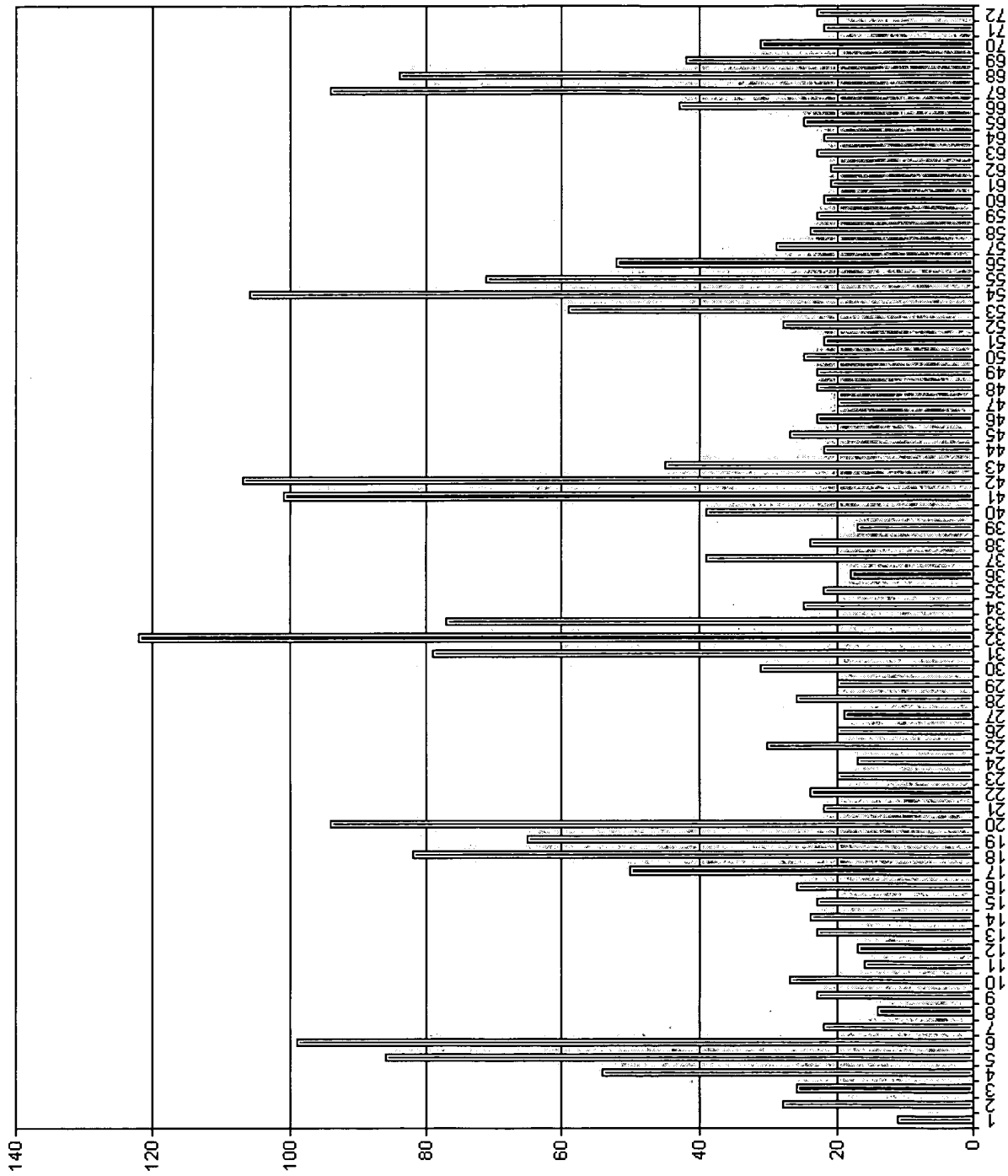
Relative Neighbor Nearest Distance Histogram ($k=1$)

Figure 3c



Radial Distribution Histogram

Figure 3d



Neighbor Nearest Distance Histogram (k=1)

Figure 3e

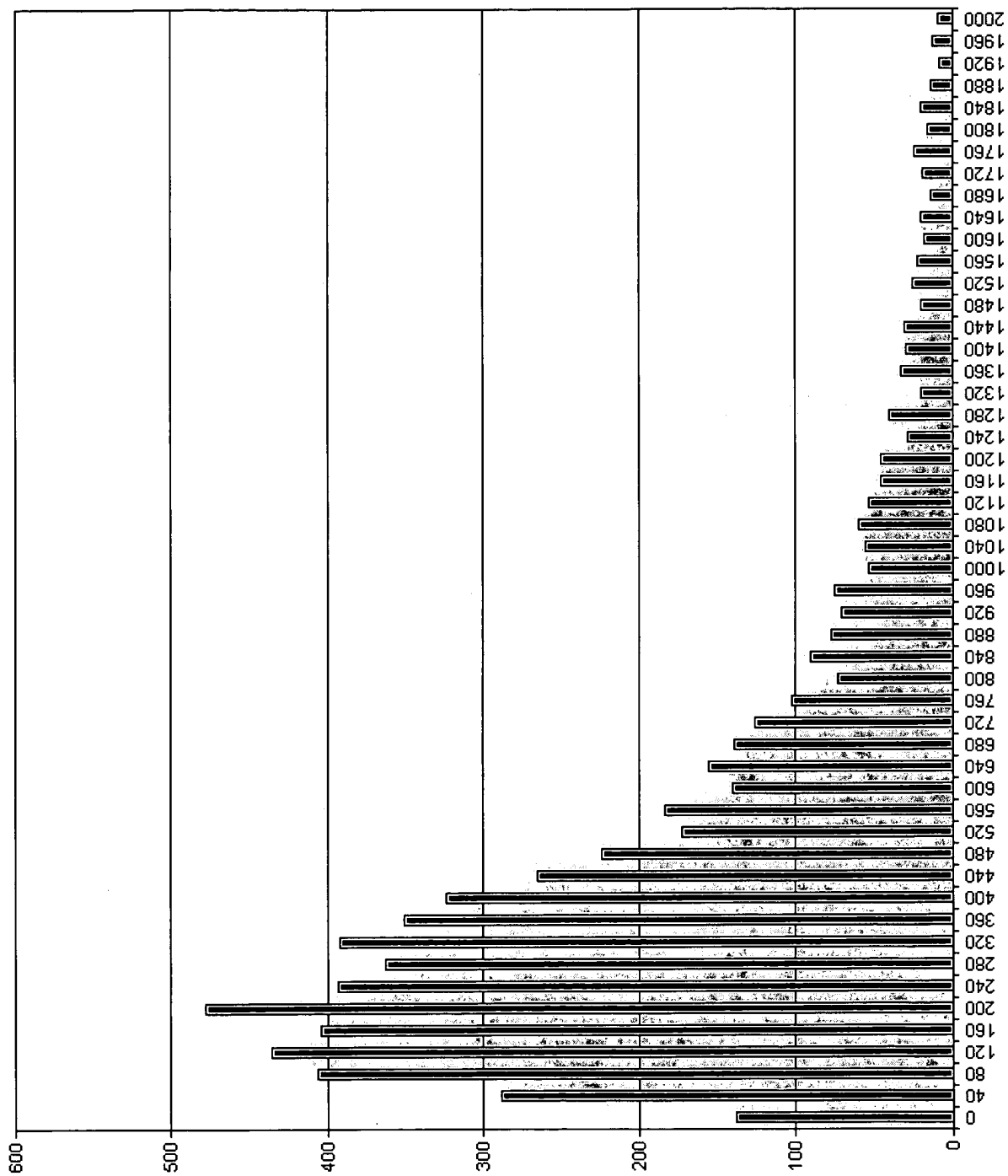


Figure 3f

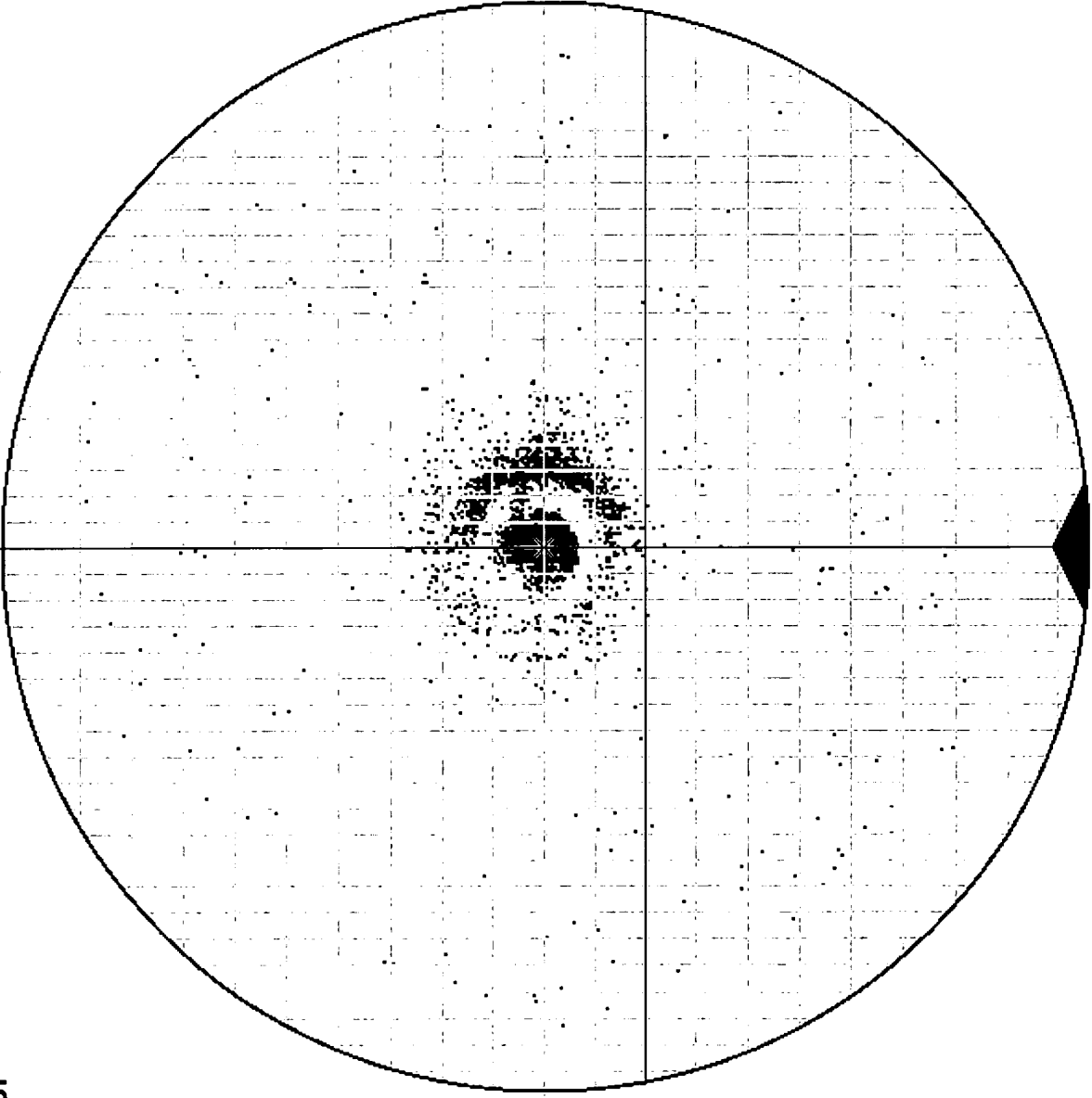


Figure 3g

Annular Distribution Histogram

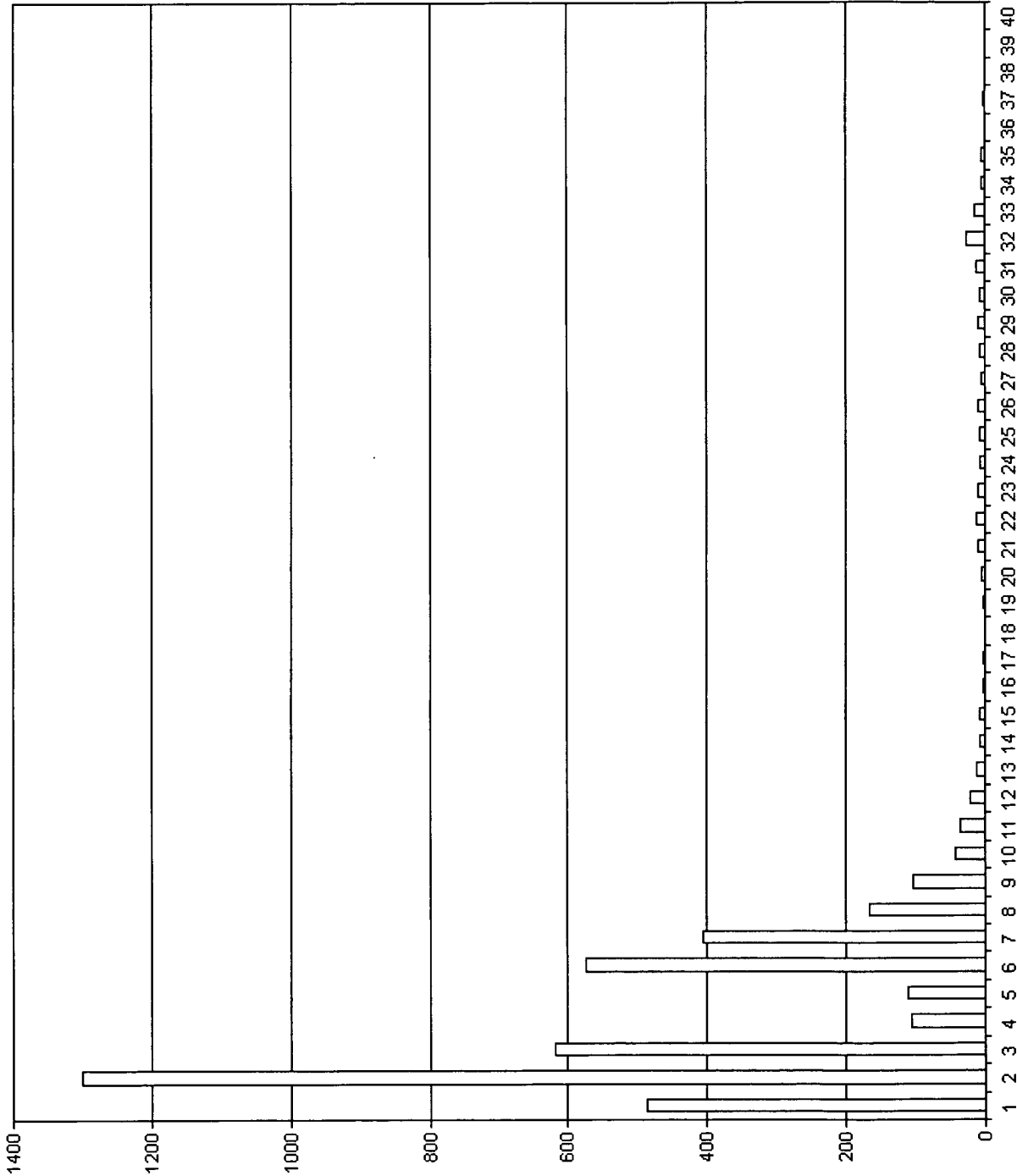
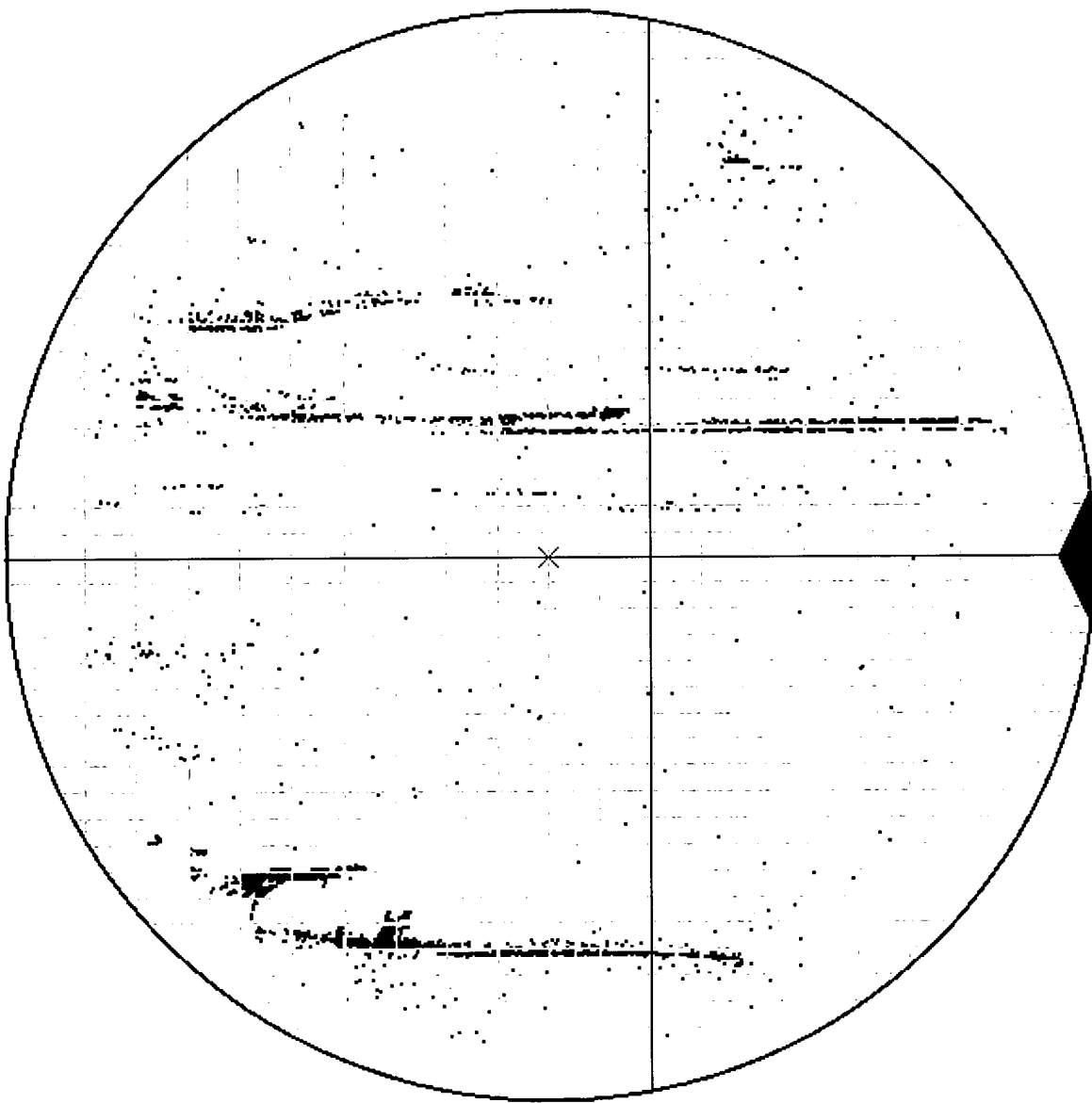
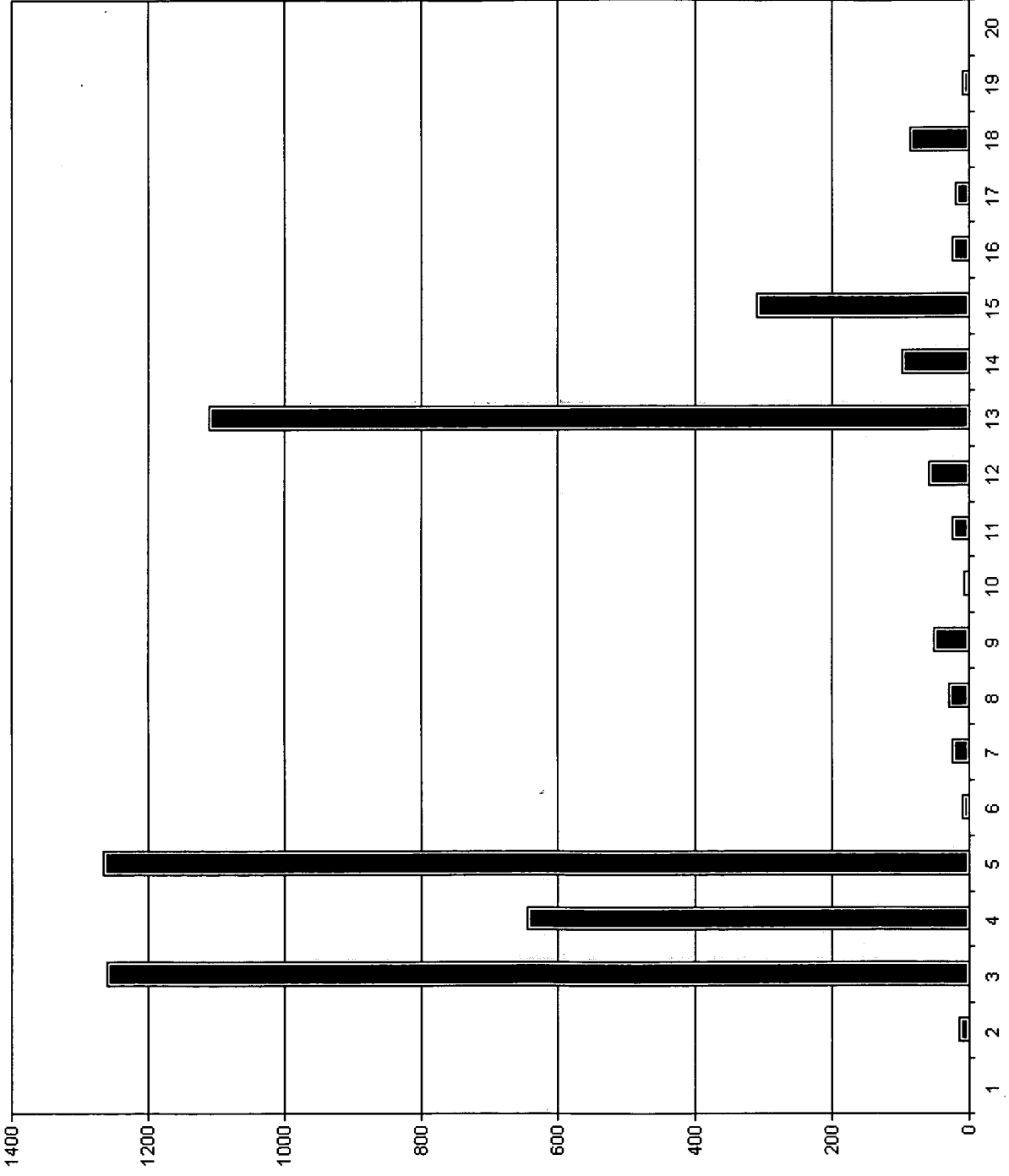


Figure 3h



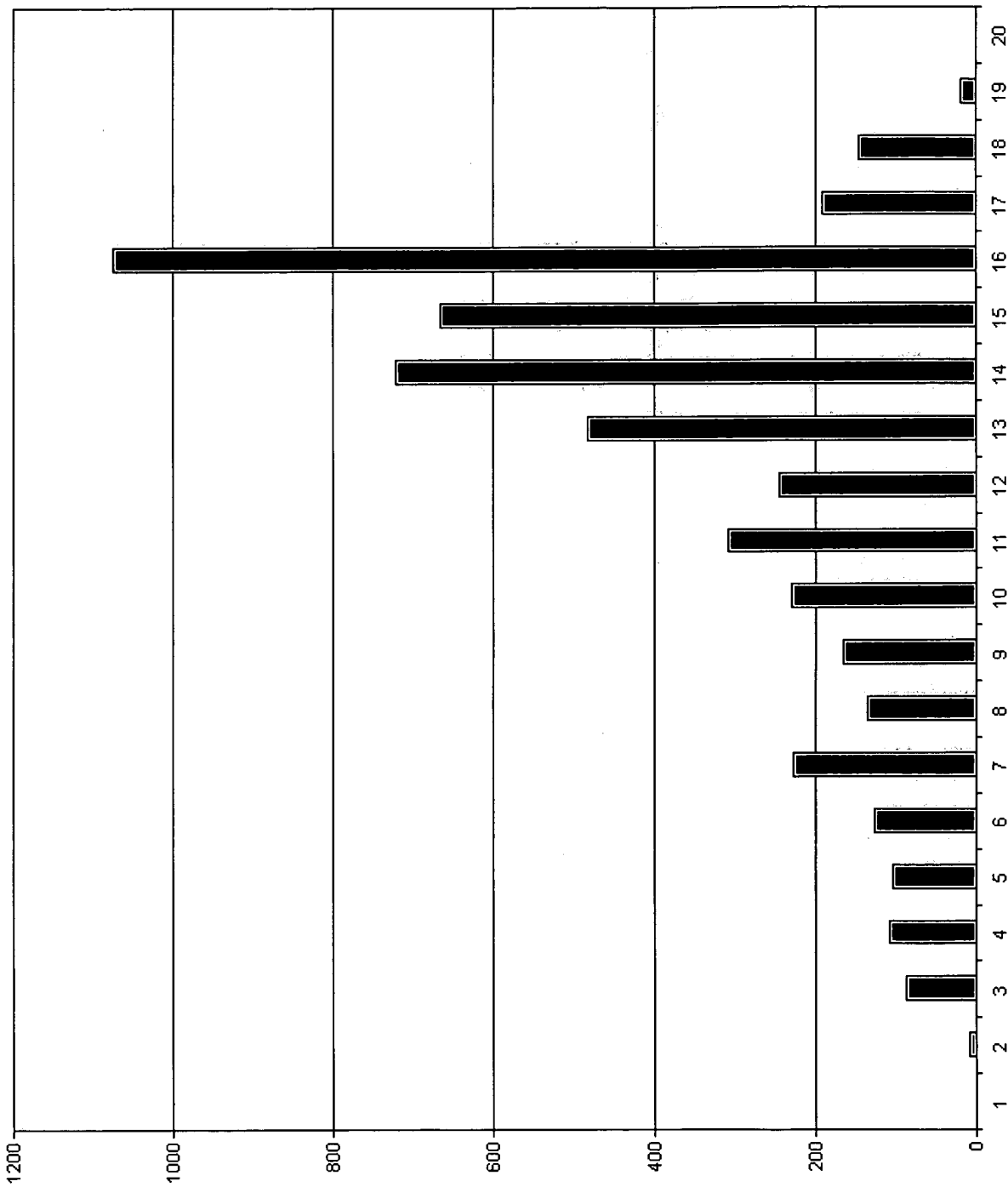
Horizontal Distribution Histogram

Figure 3i



Vertical Distribution Histogram

Figure 3j



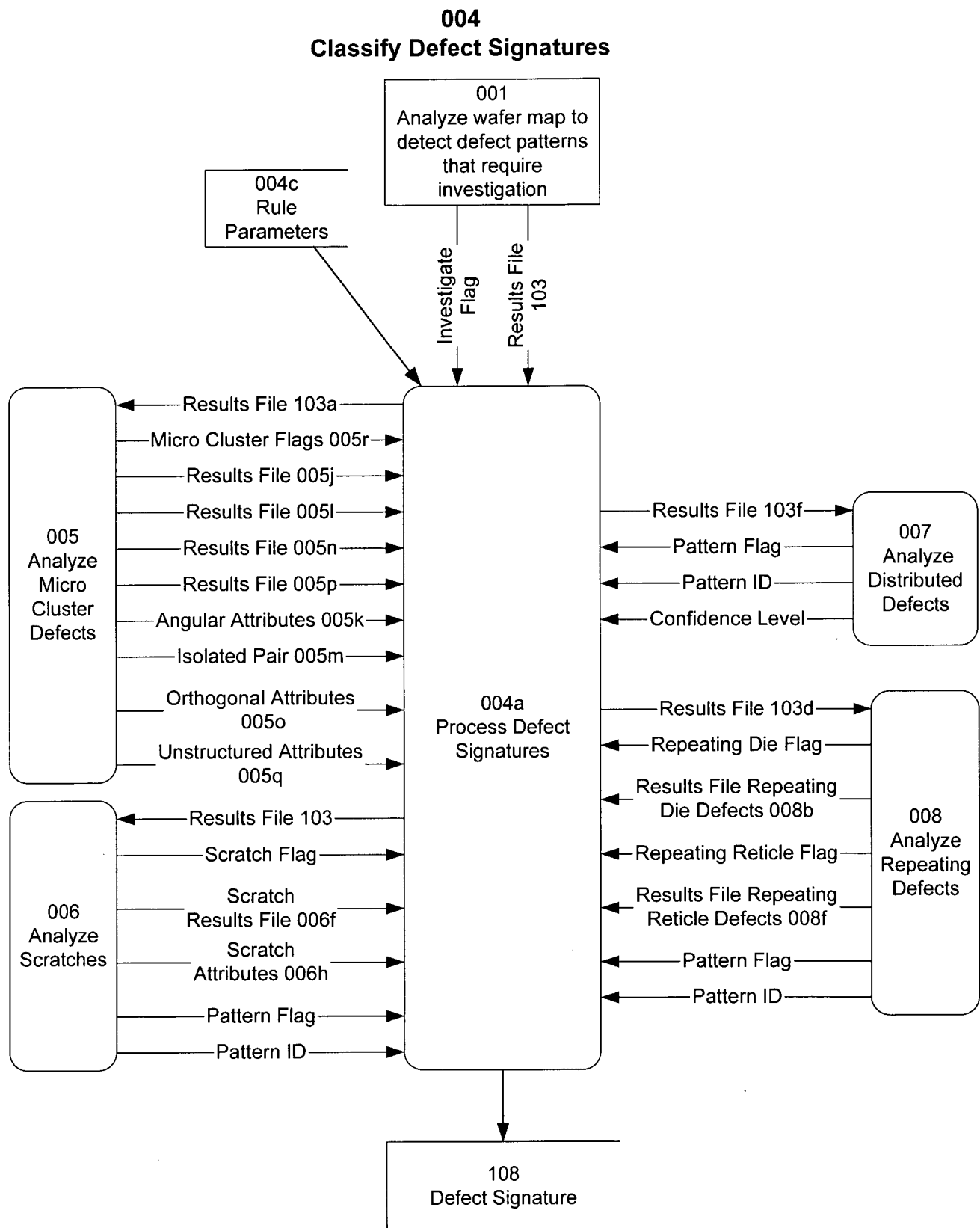


Figure 4

005
Analyze Micro Cluster Defects

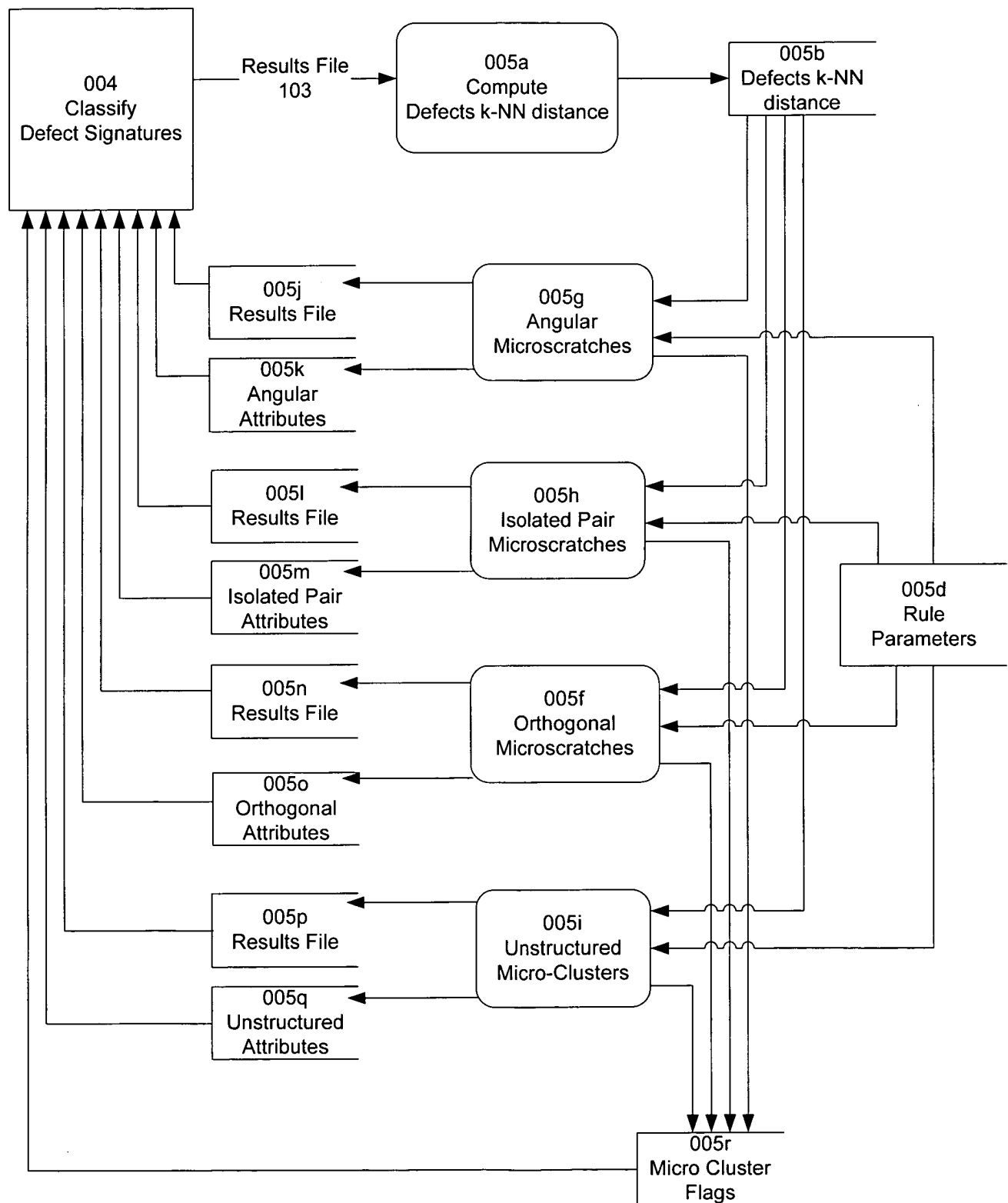
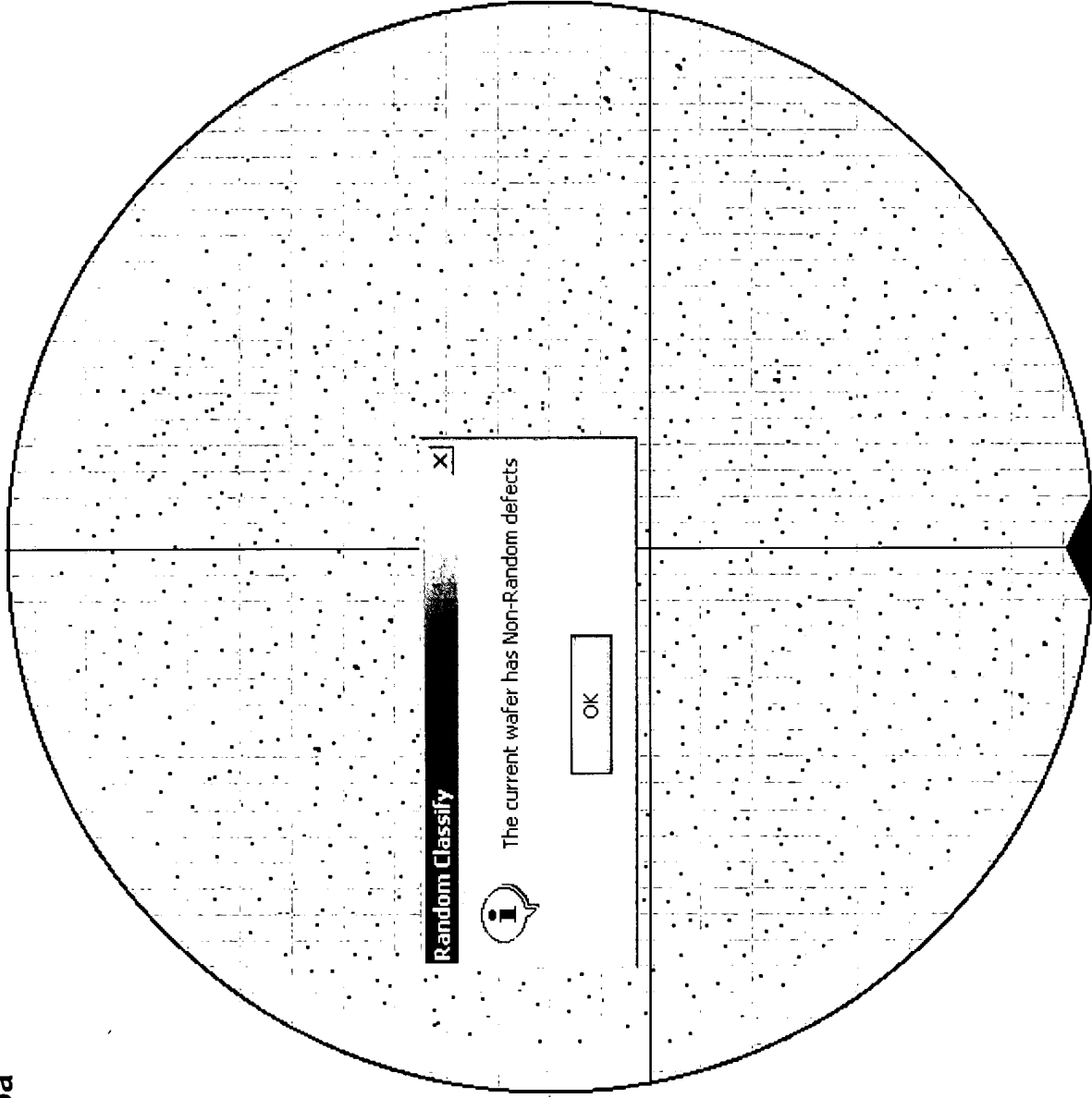


Figure 5

Figure 5a



Relative Neighbor Nearest Distance Histogram ($k=1$)

Figure 5b

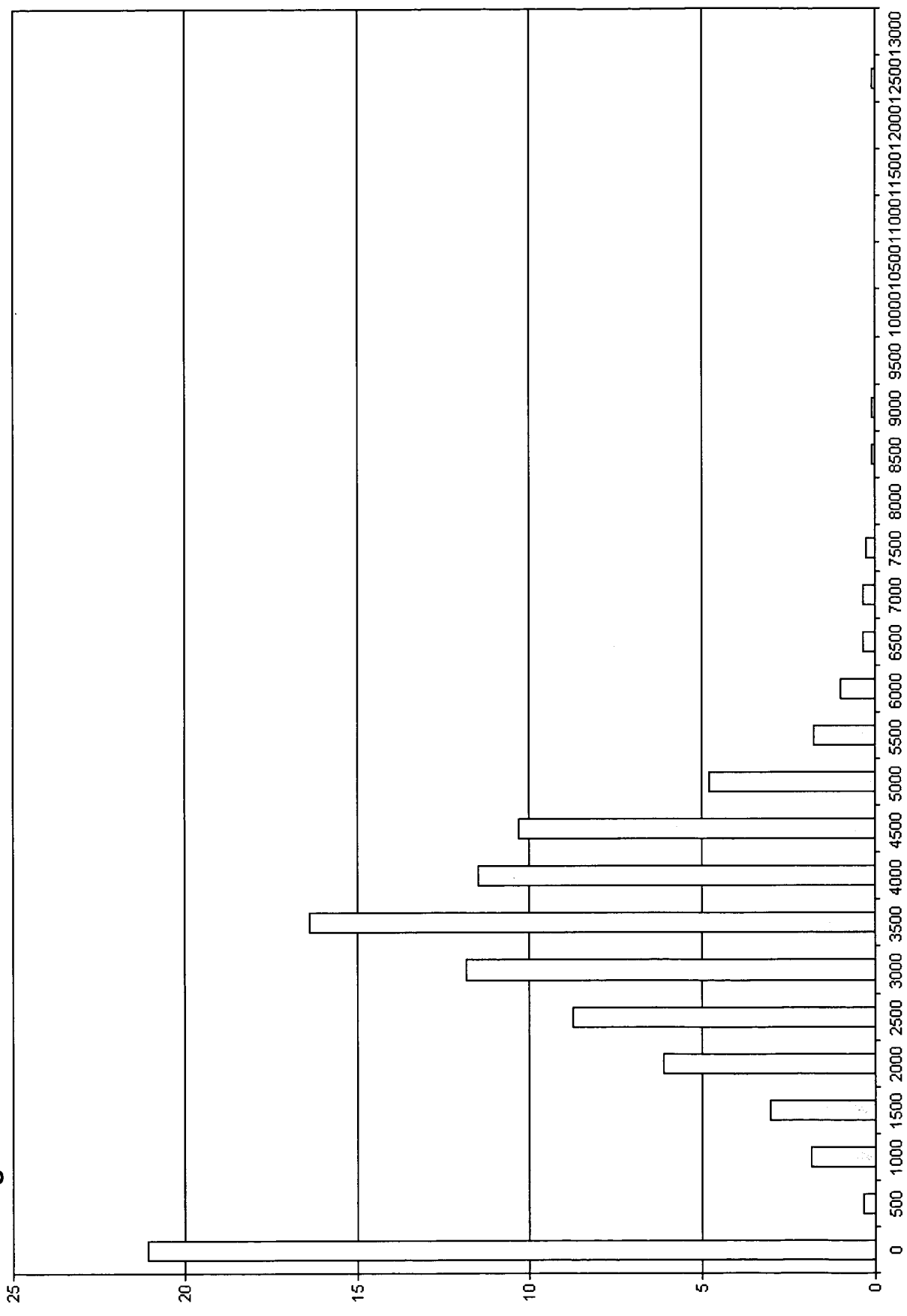


Figure 5c

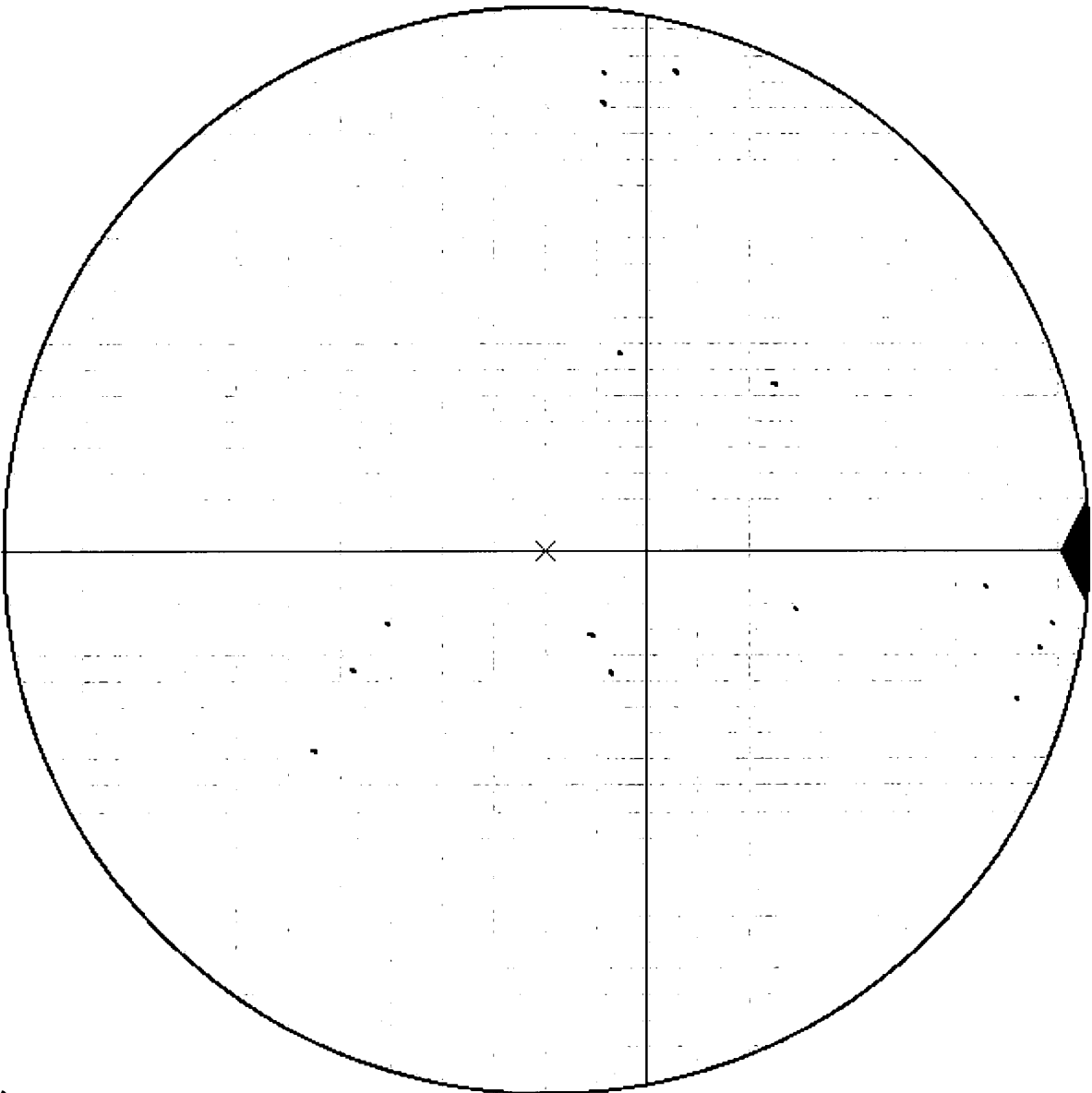
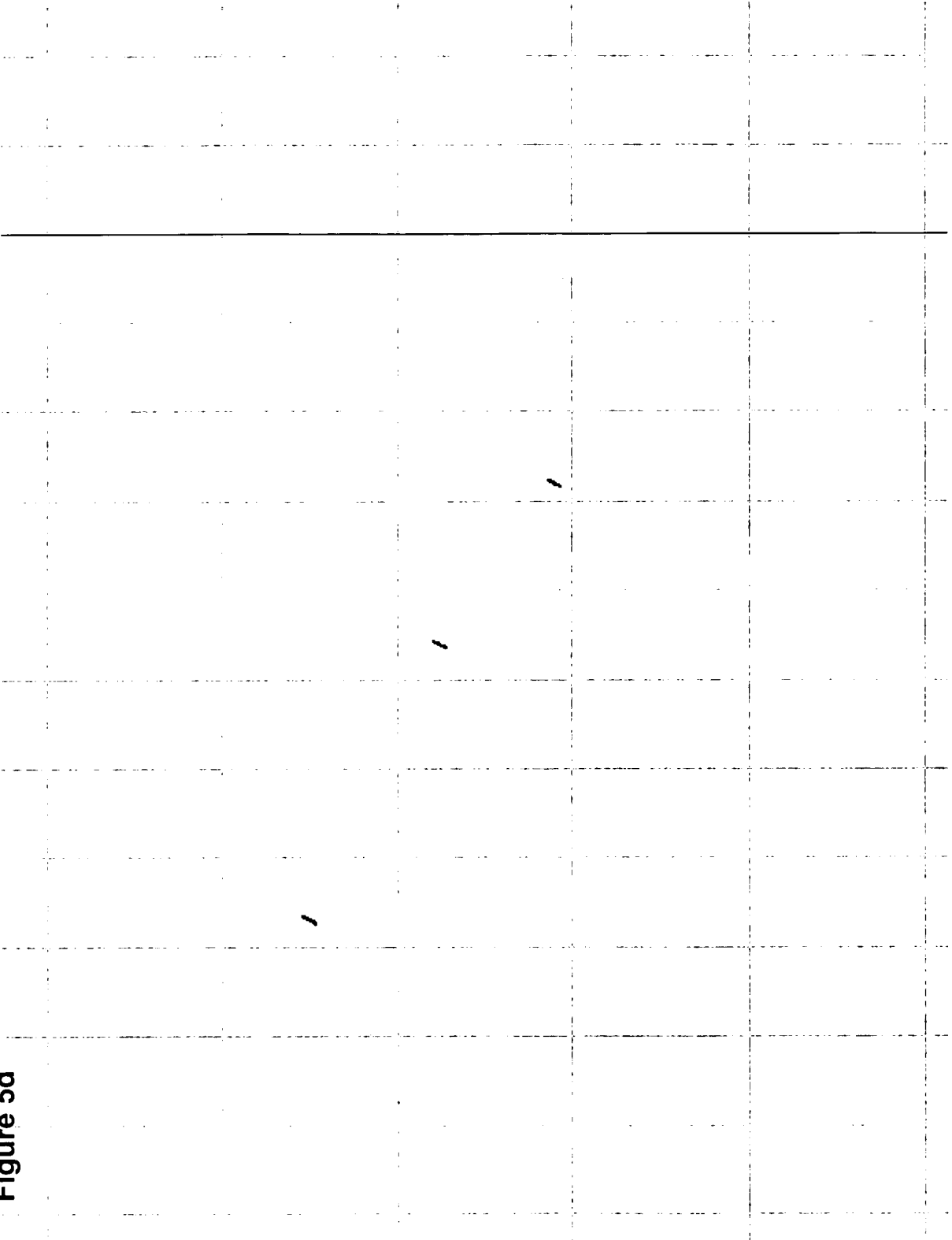


Figure 5d



**006
Analyze Scratches**

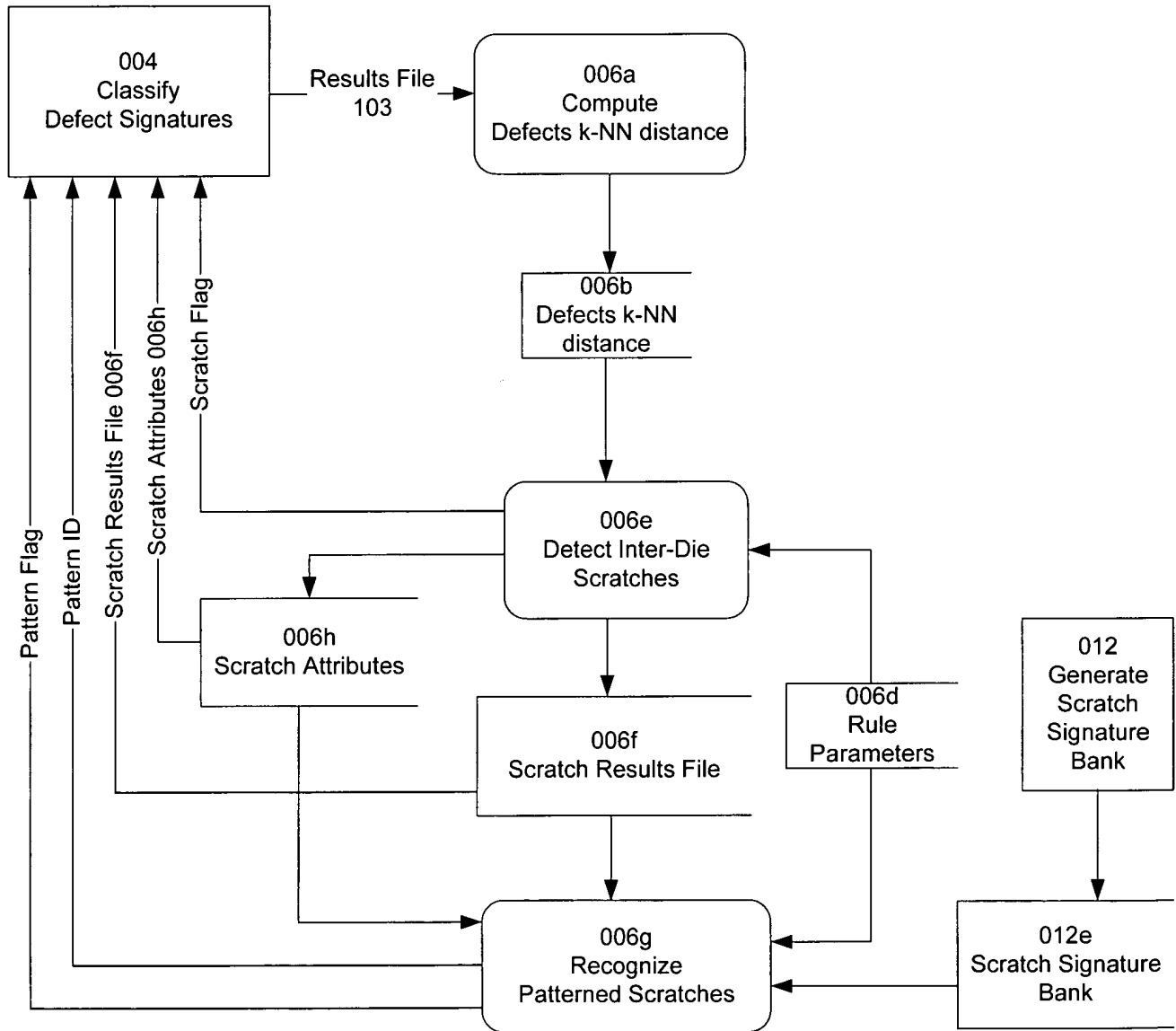


Figure 6

Figure 6a

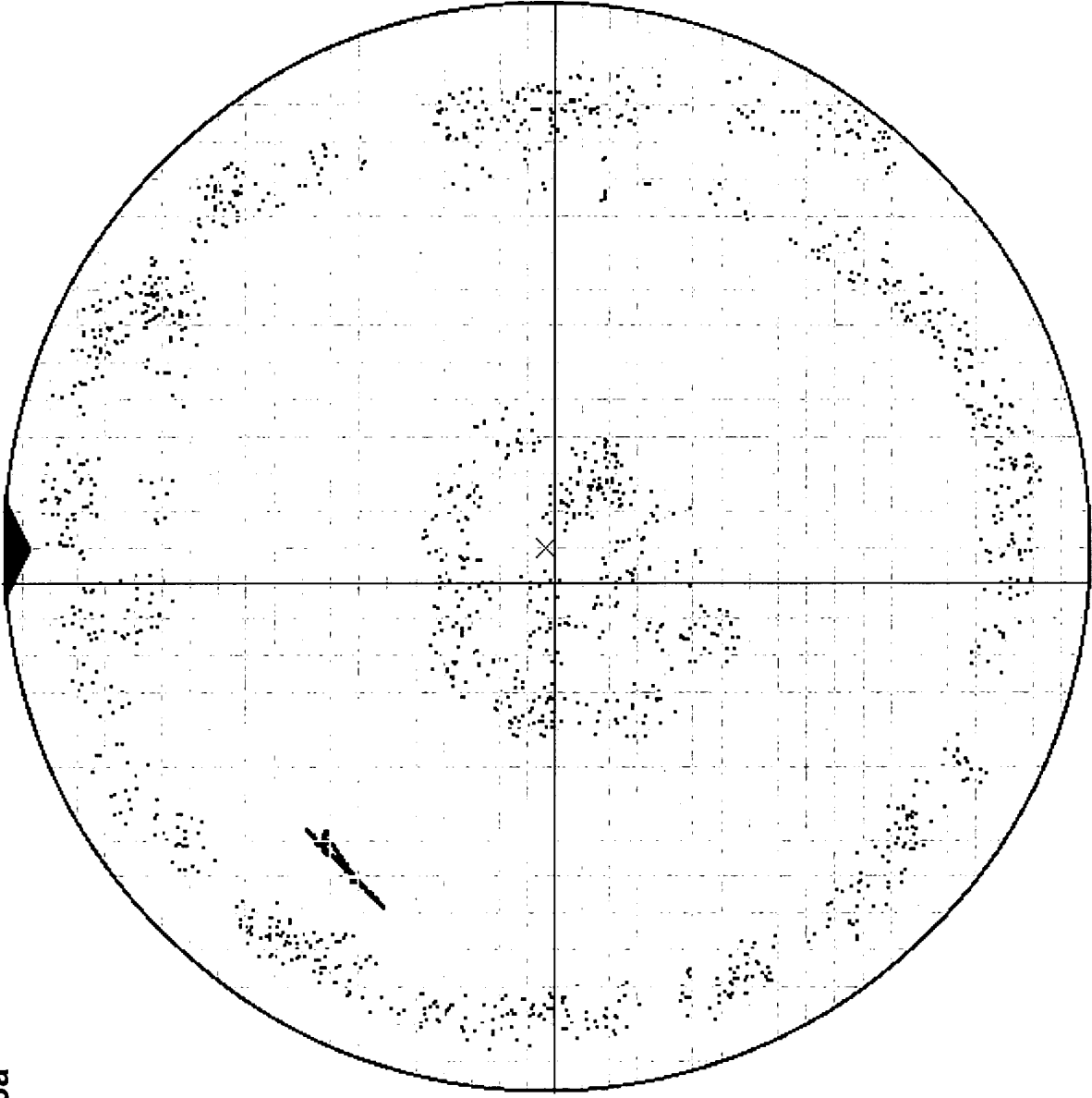


Figure 6b

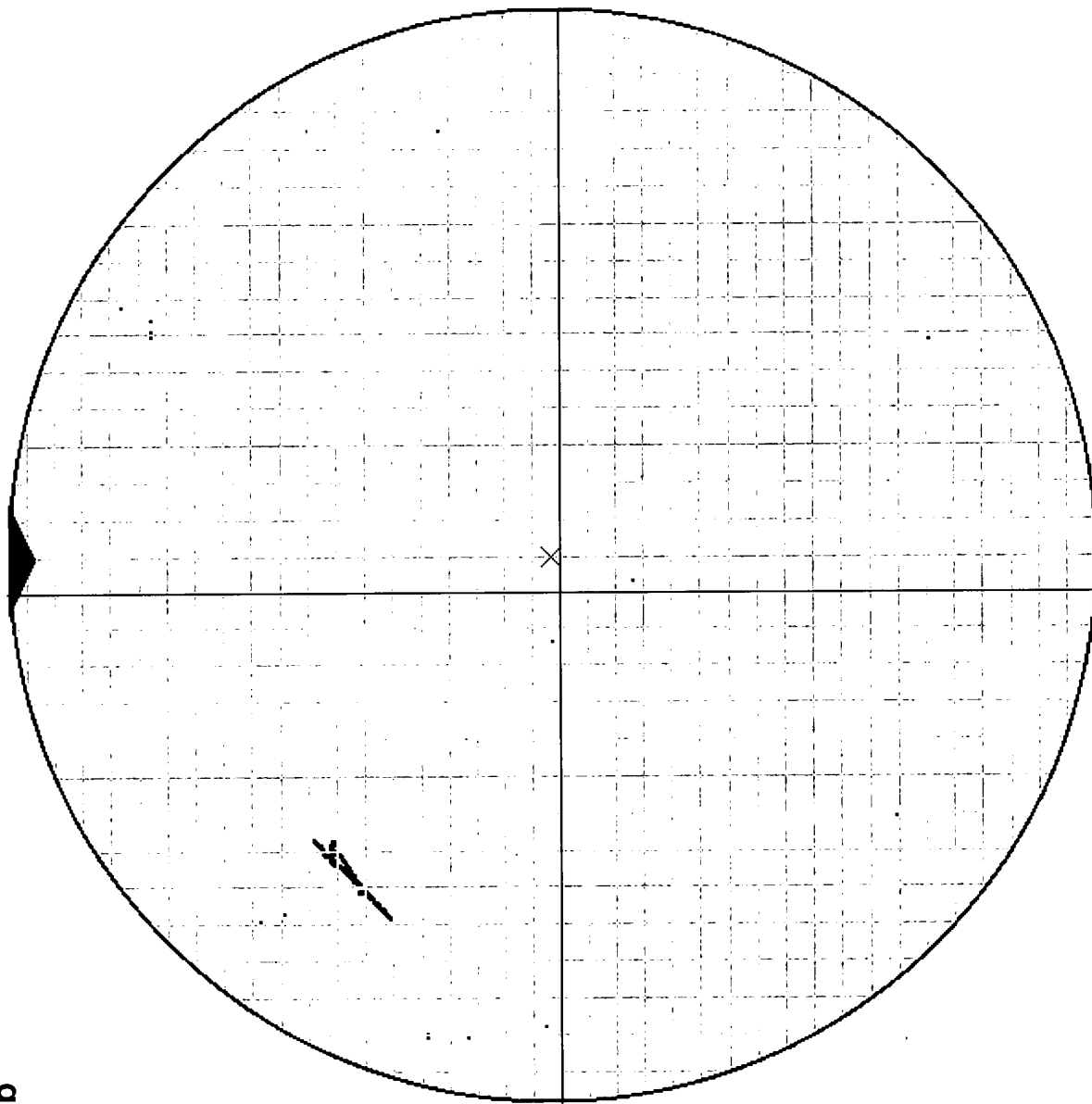


Figure 6c

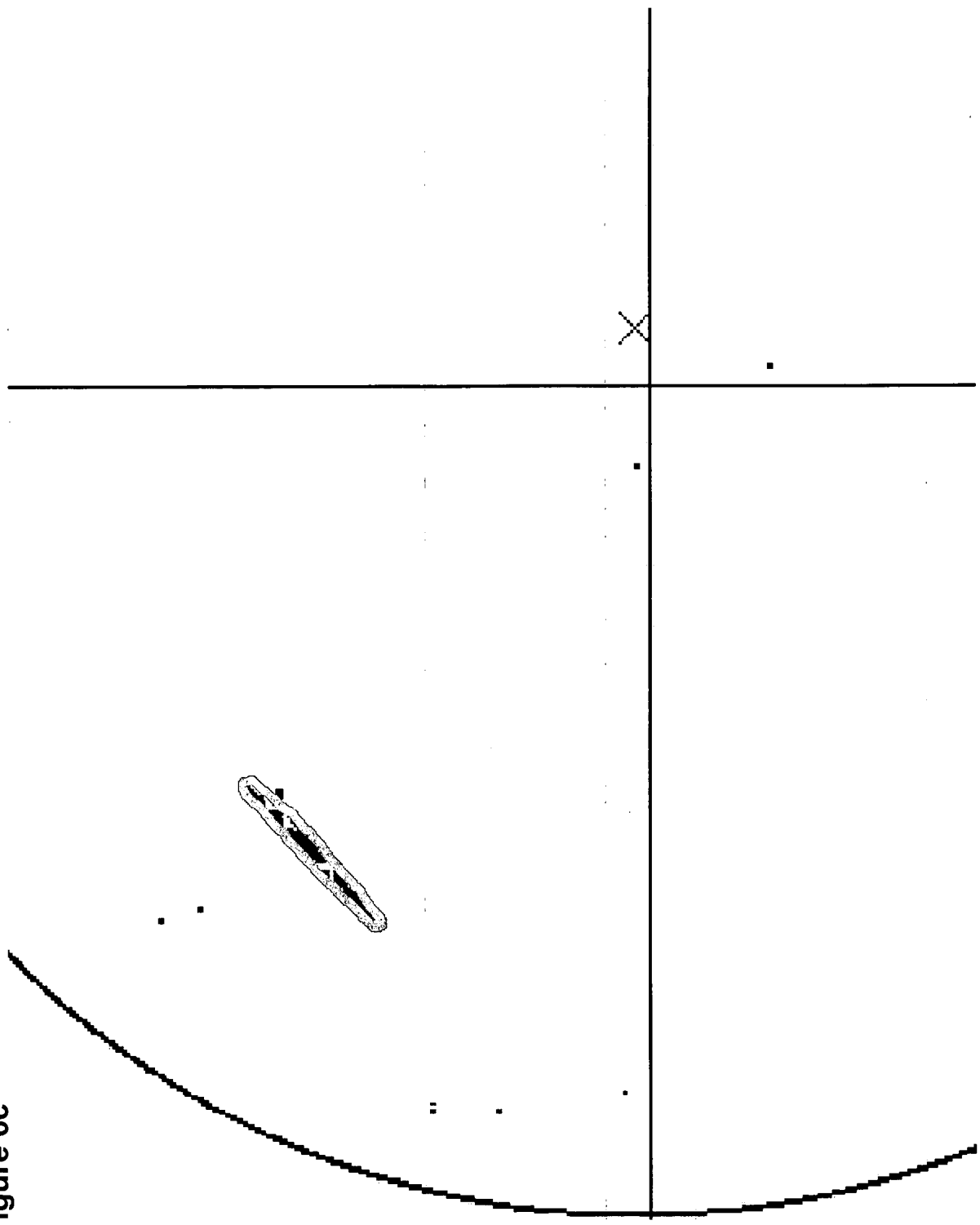


Figure 6d

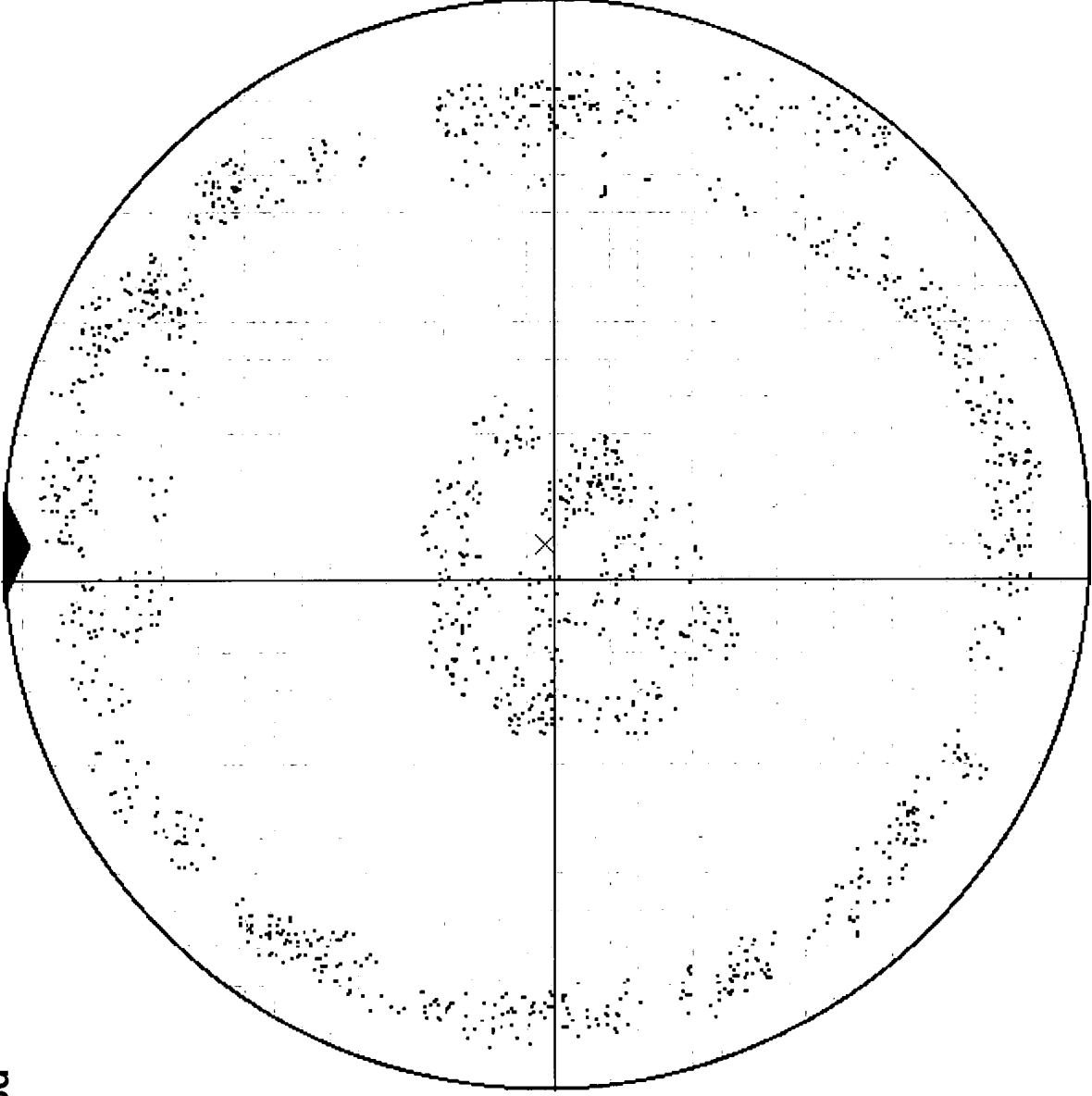
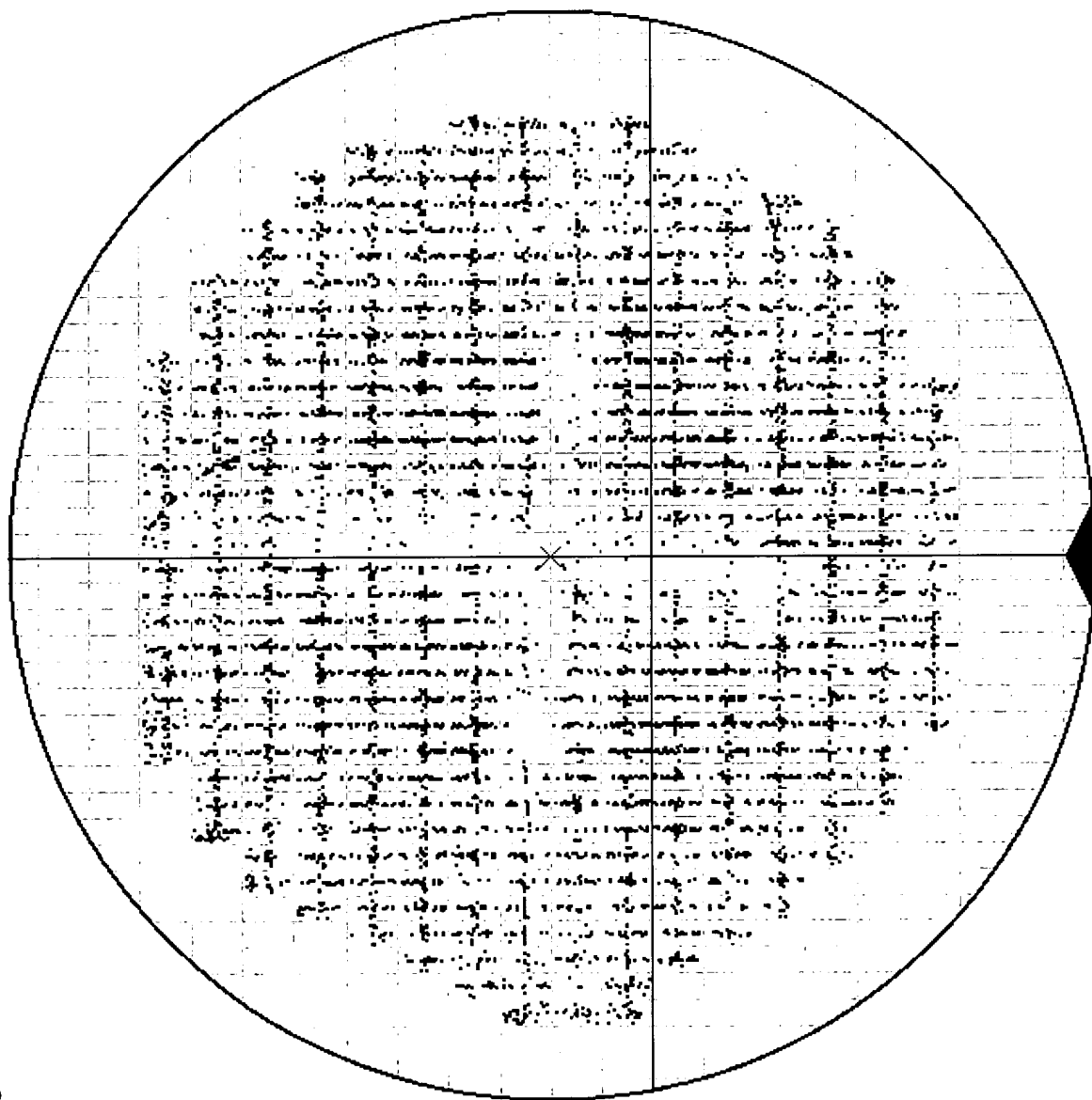


Figure 6e



Neighbor Nearest Distance Histogram (k=1)

Figure 6f

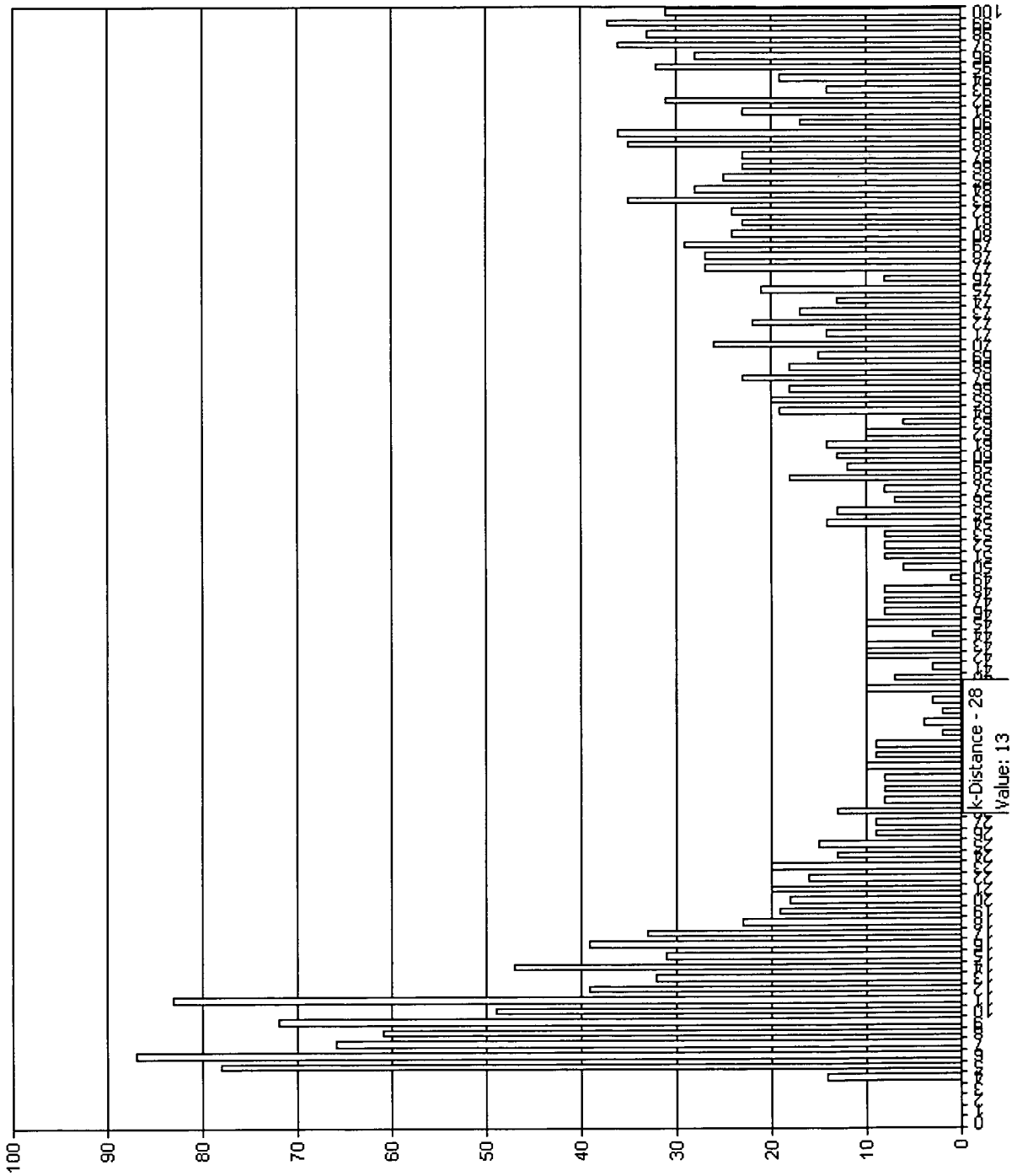


Figure 6g

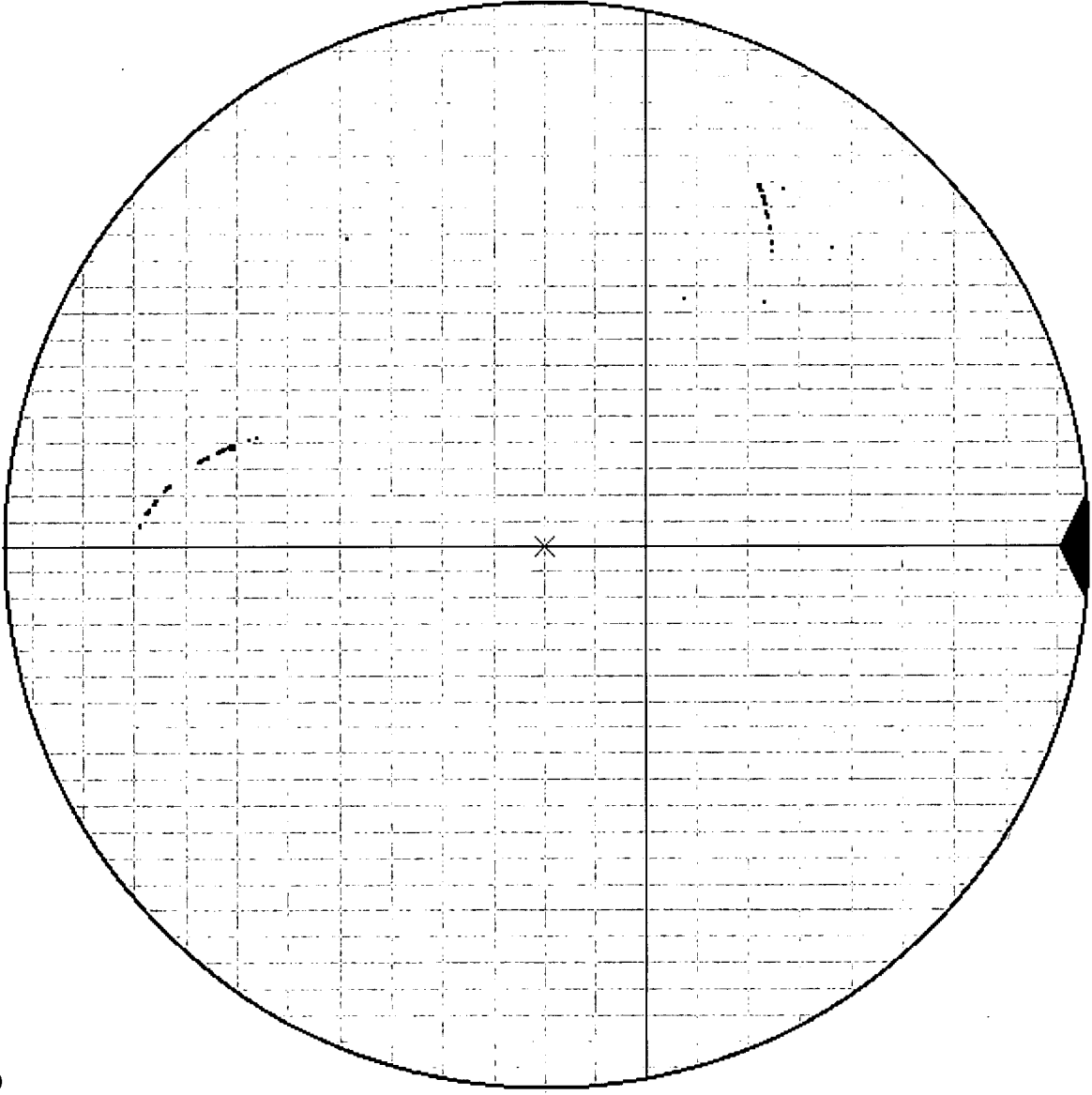


Figure 6h

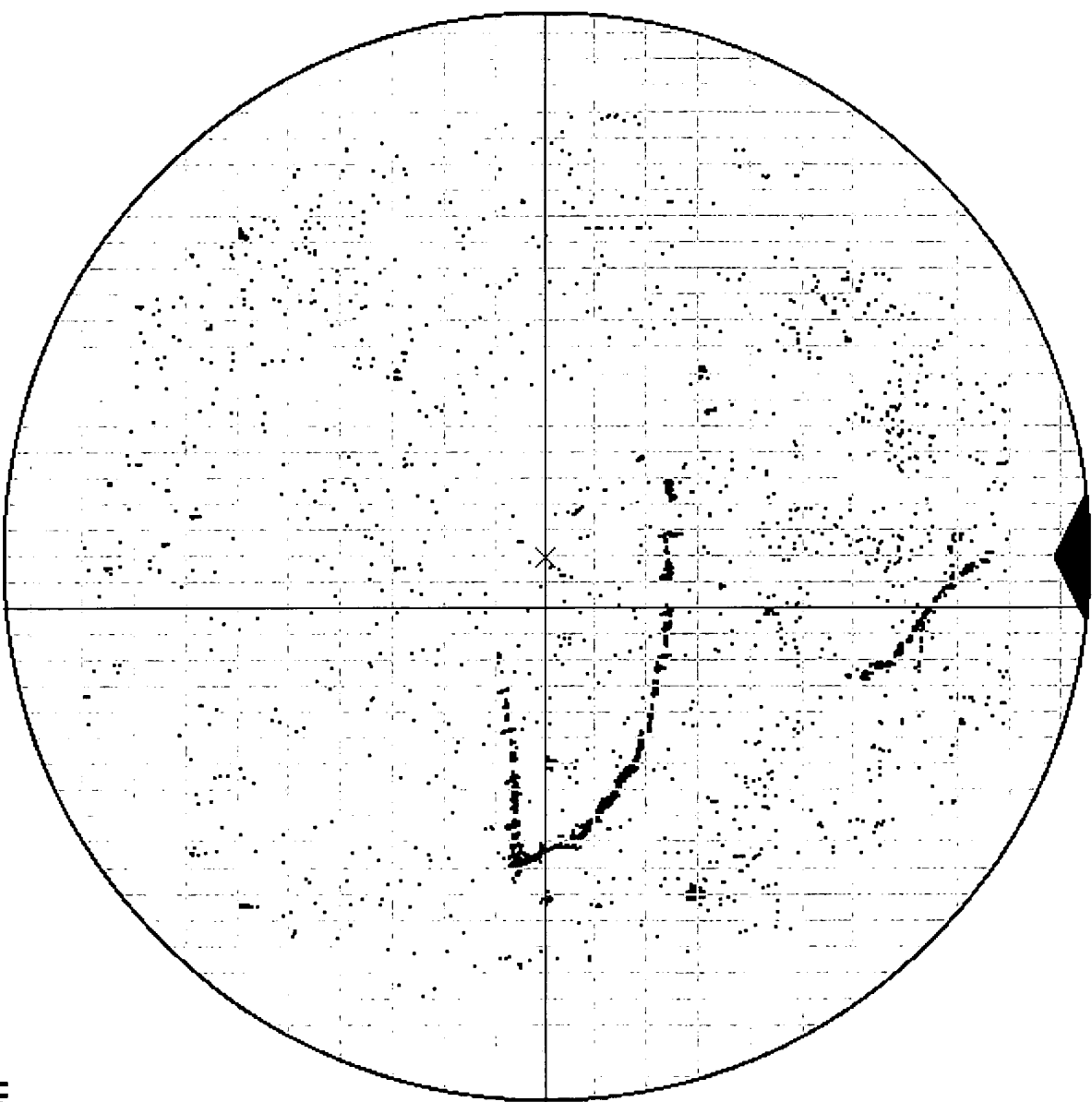
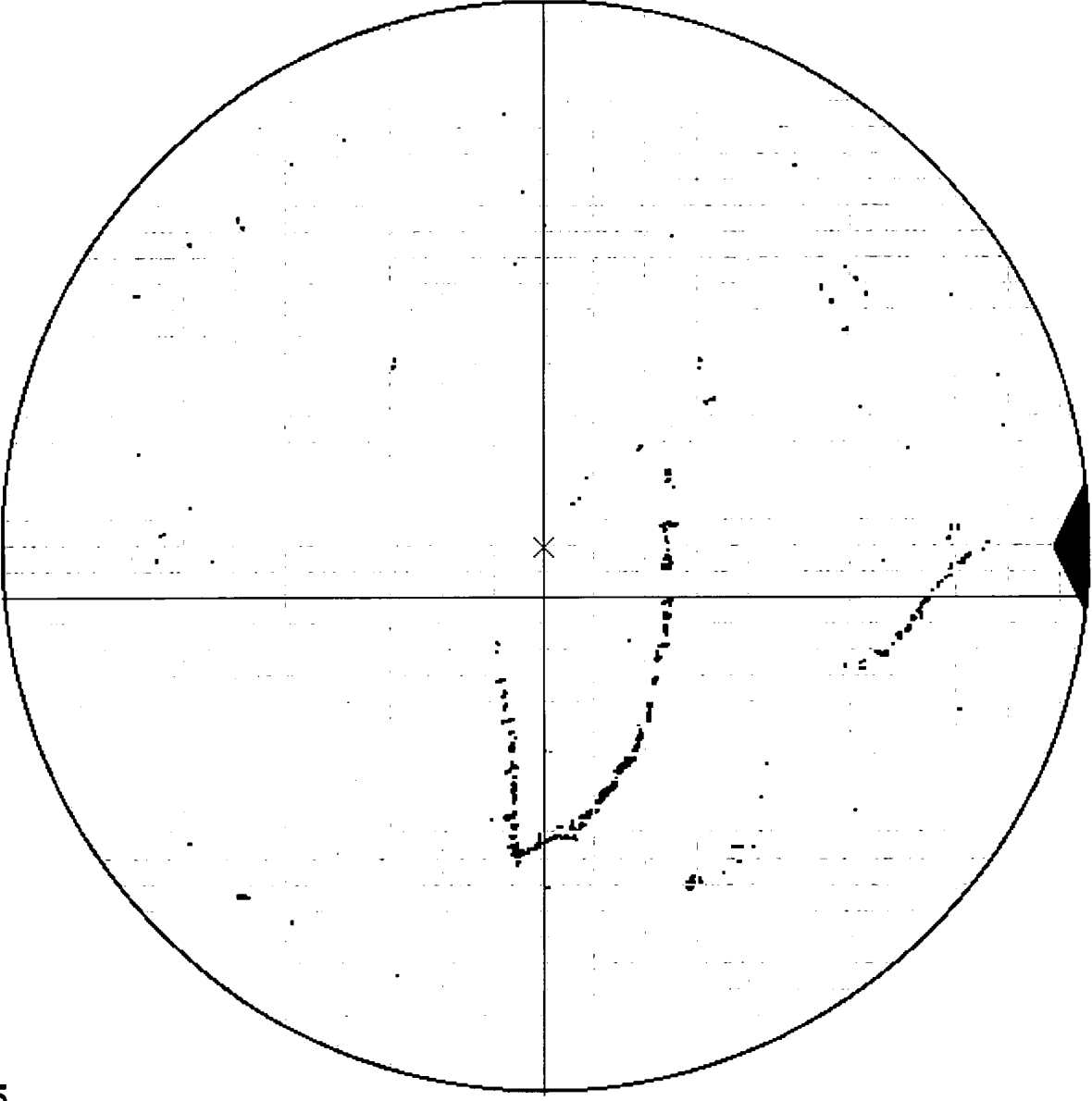


Figure 6i



007
Analyze Distributed Defects

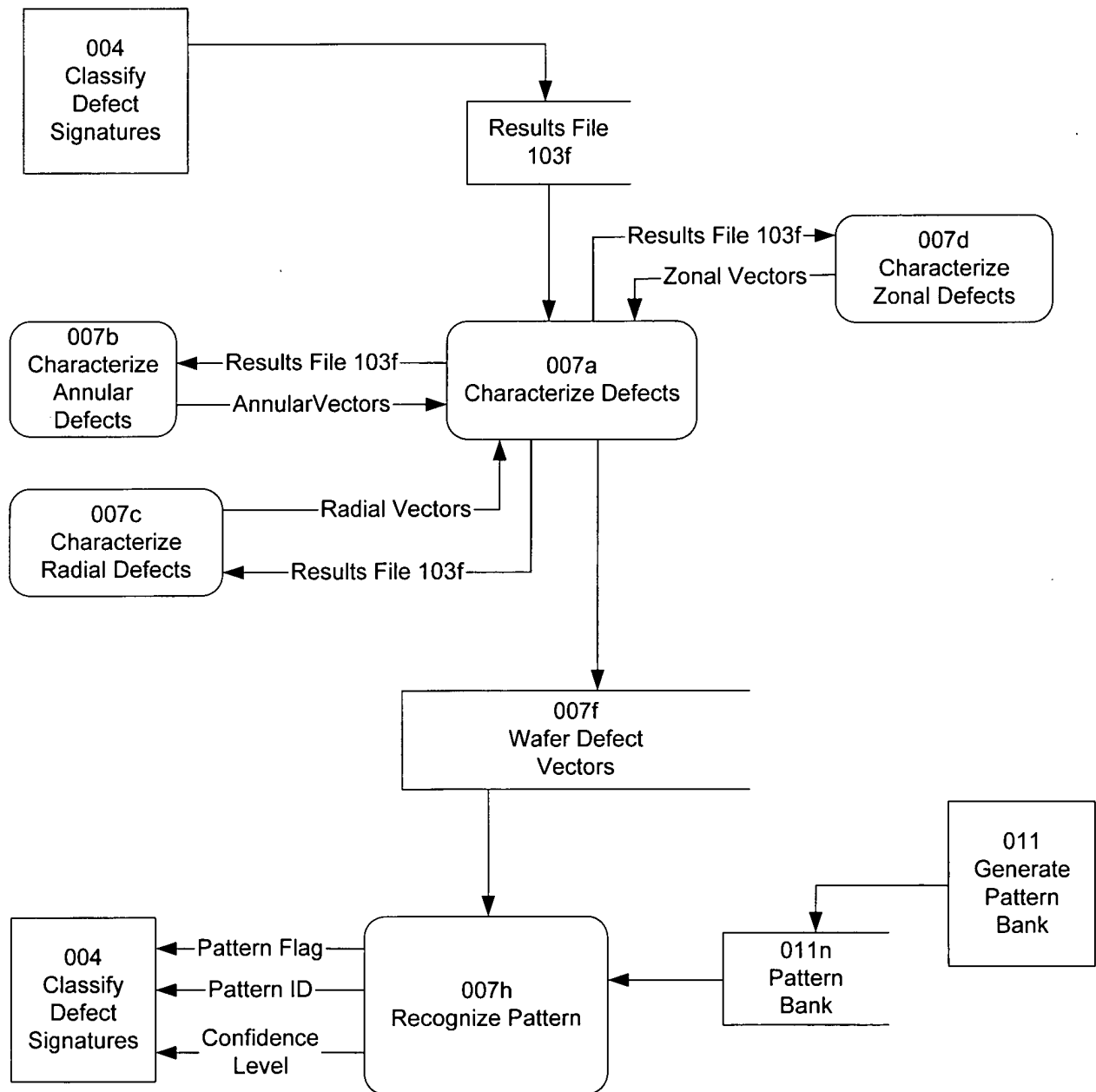
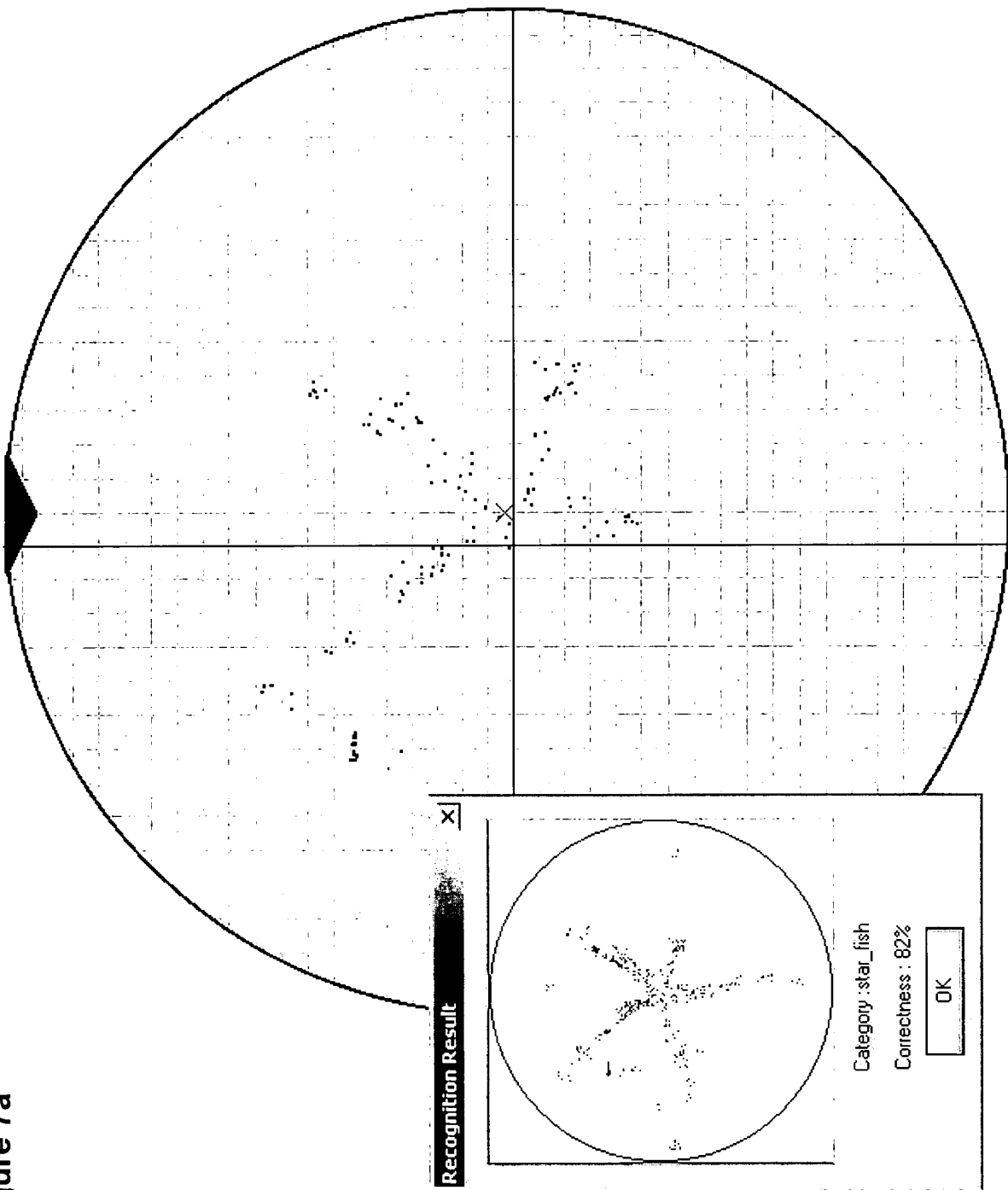


Figure 7

Figure 7a



008
Analyze Repeating Defects

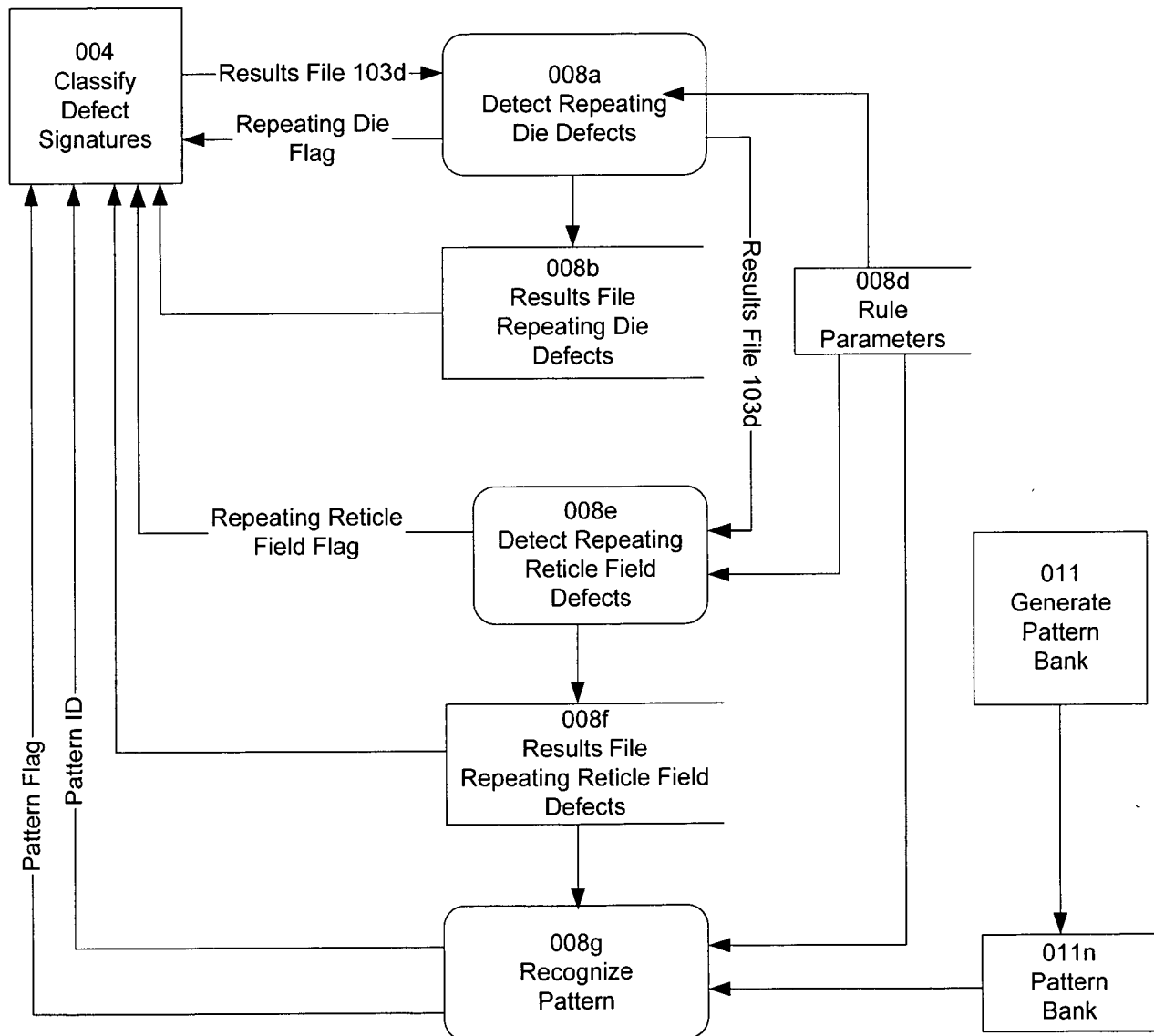


Figure 8

Figure 8a

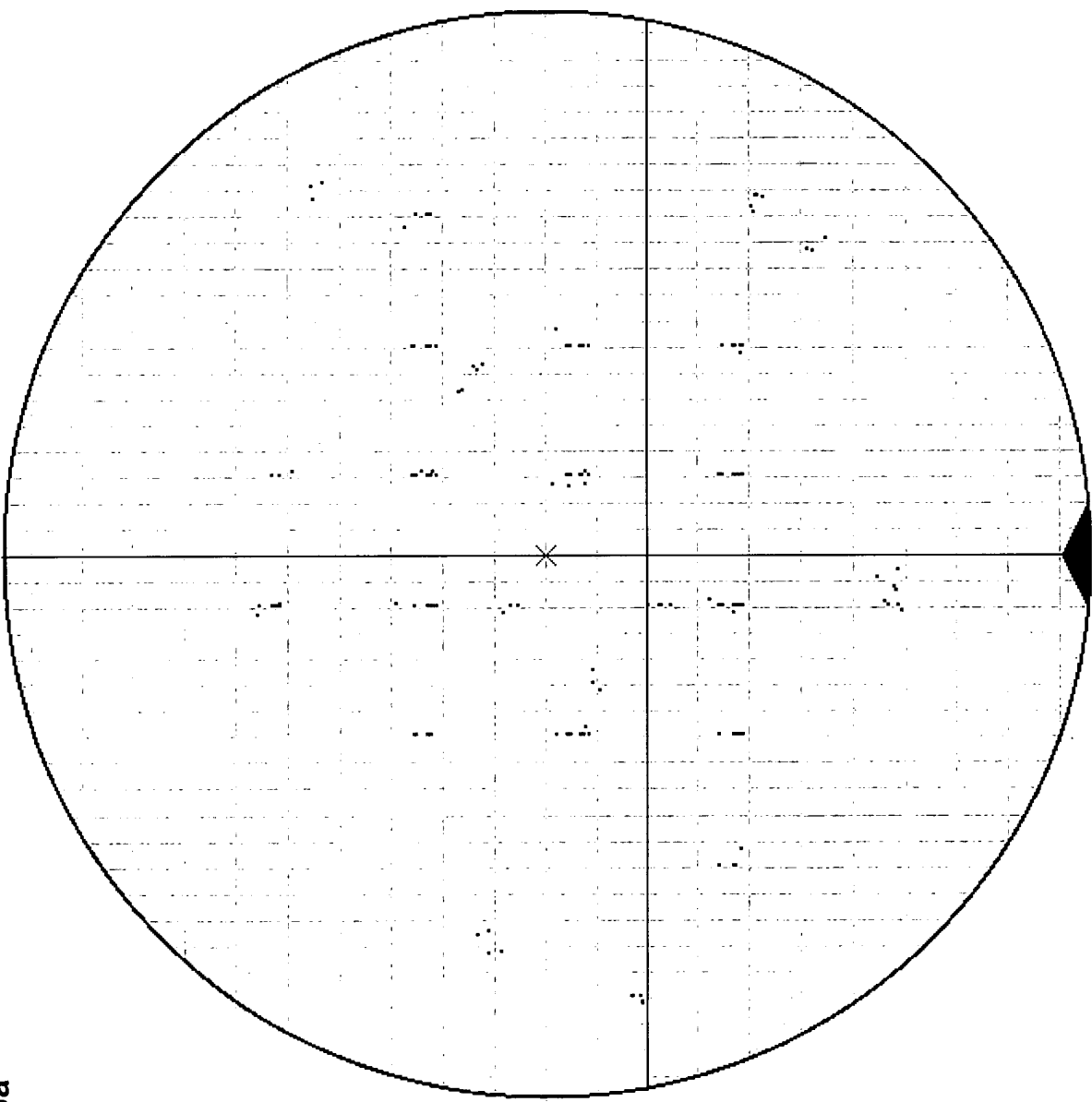


Figure 8b

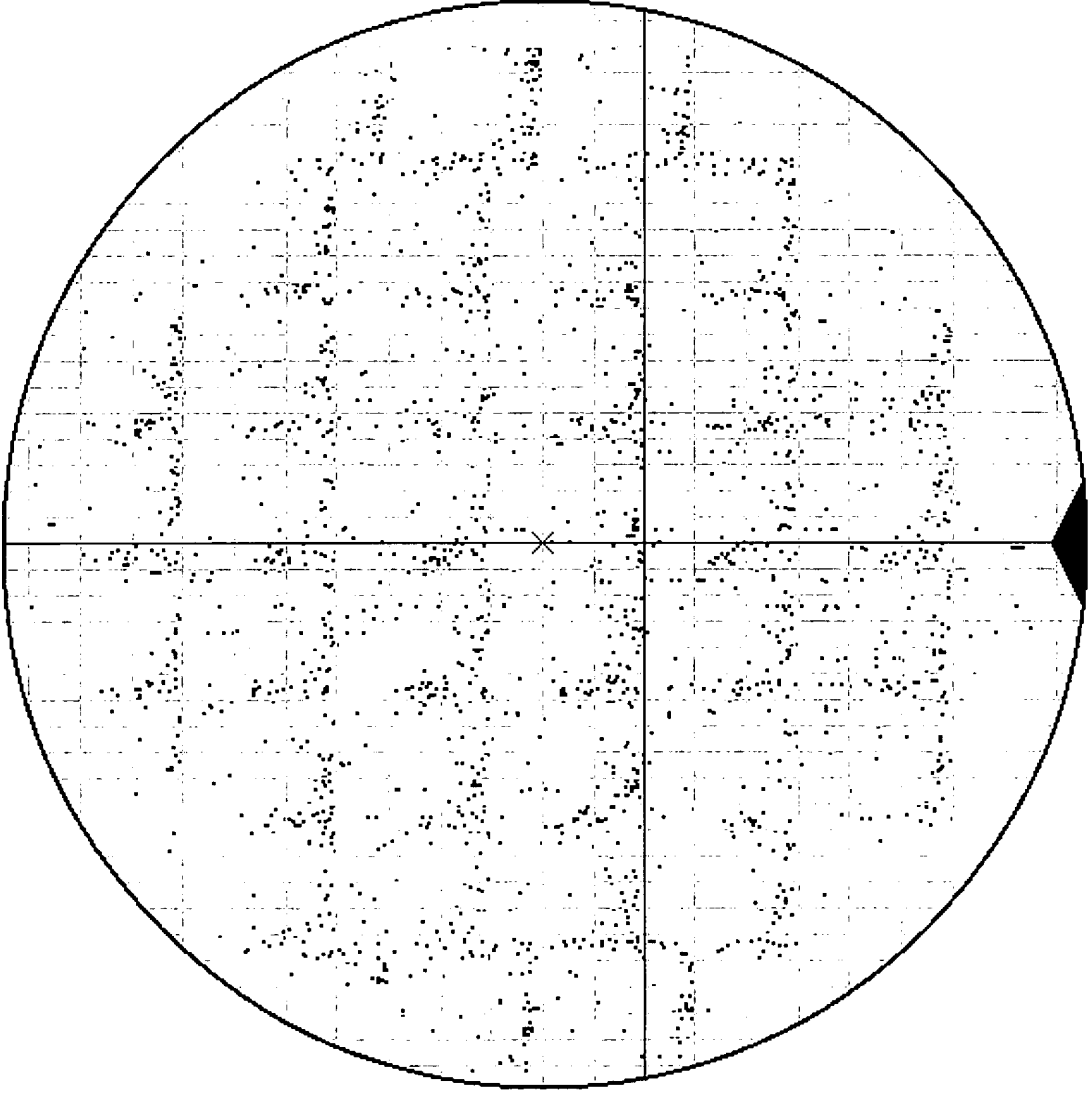
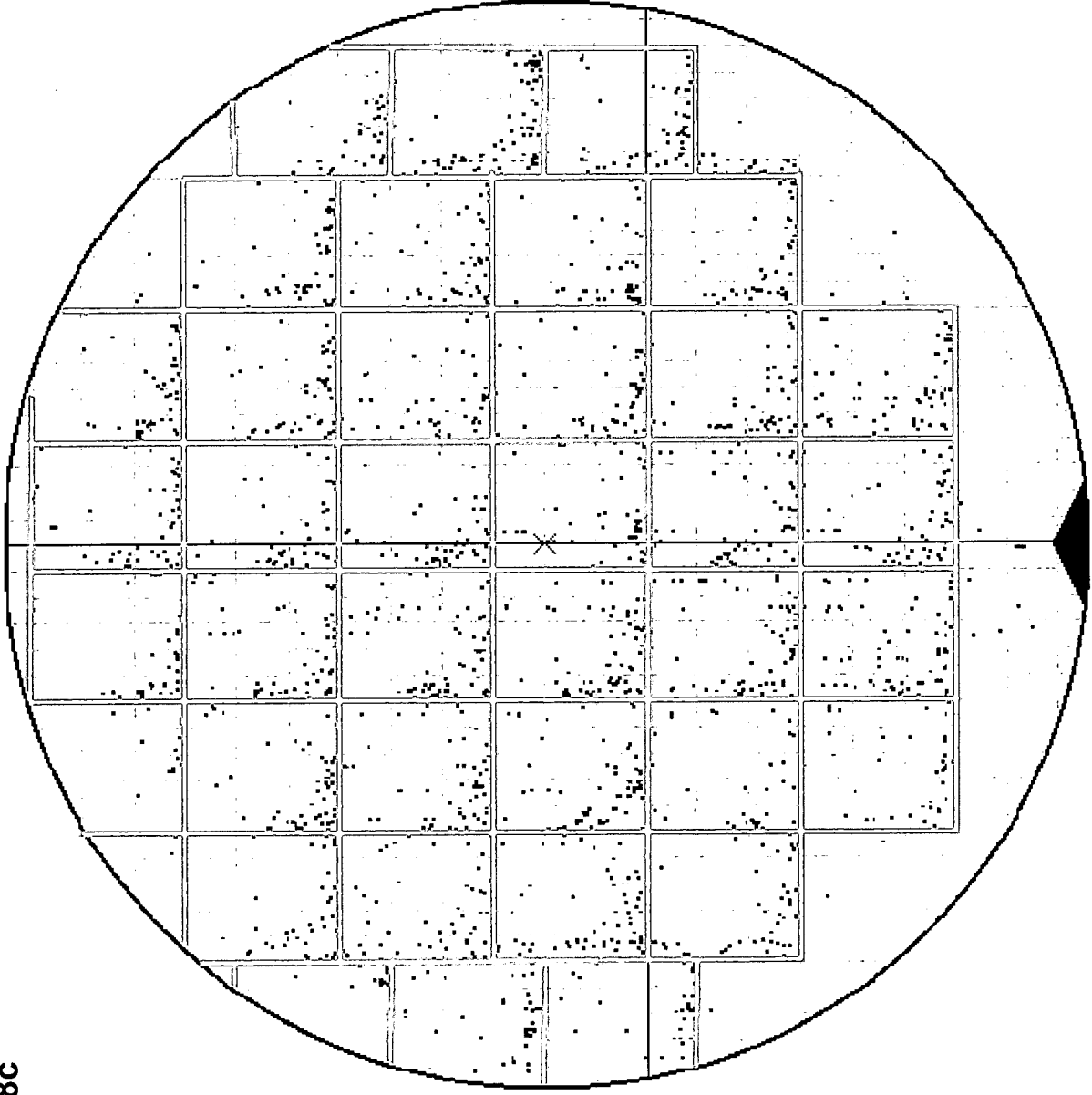


Figure 8c



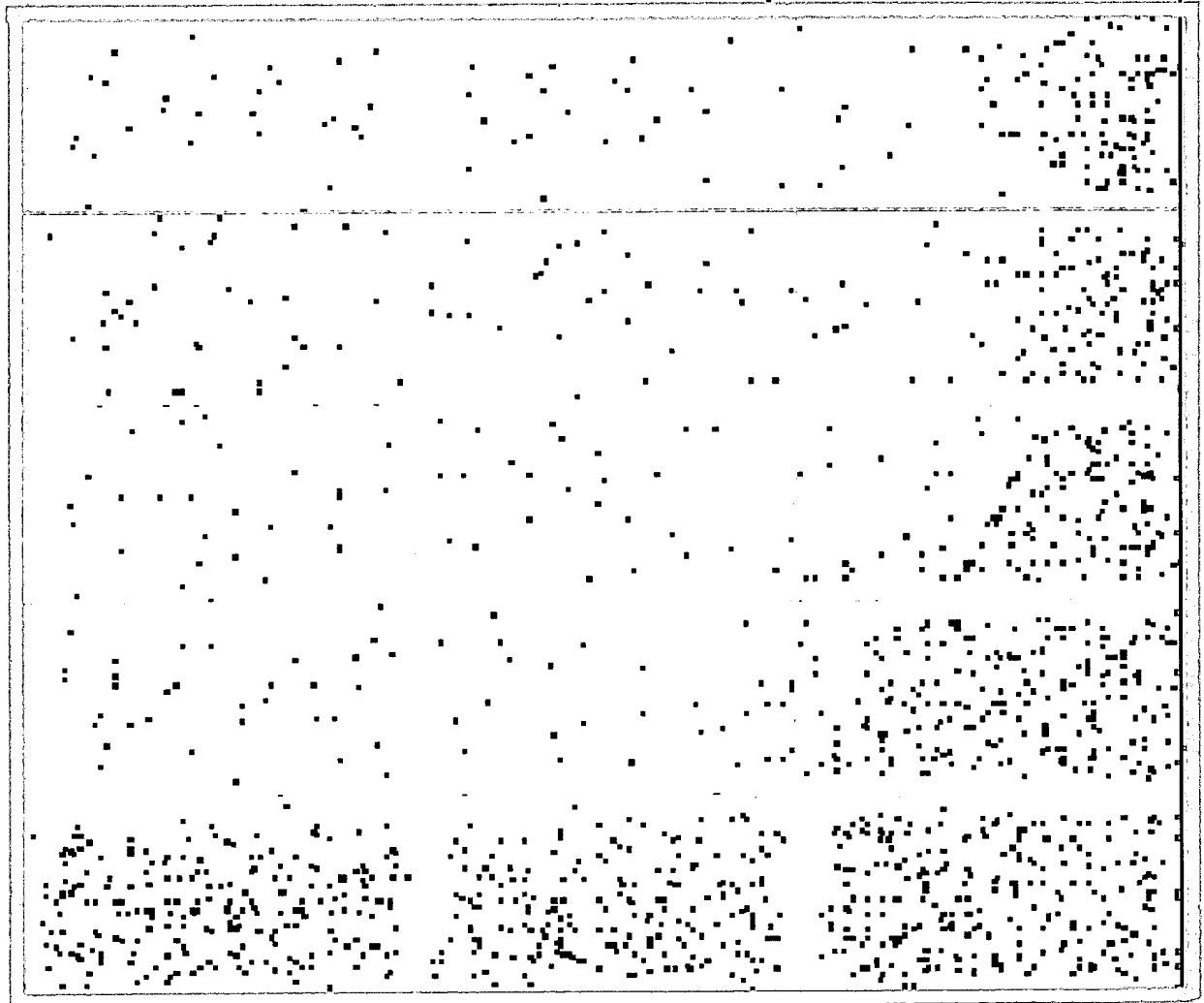


Figure 8d

010
Intelligent Process Control

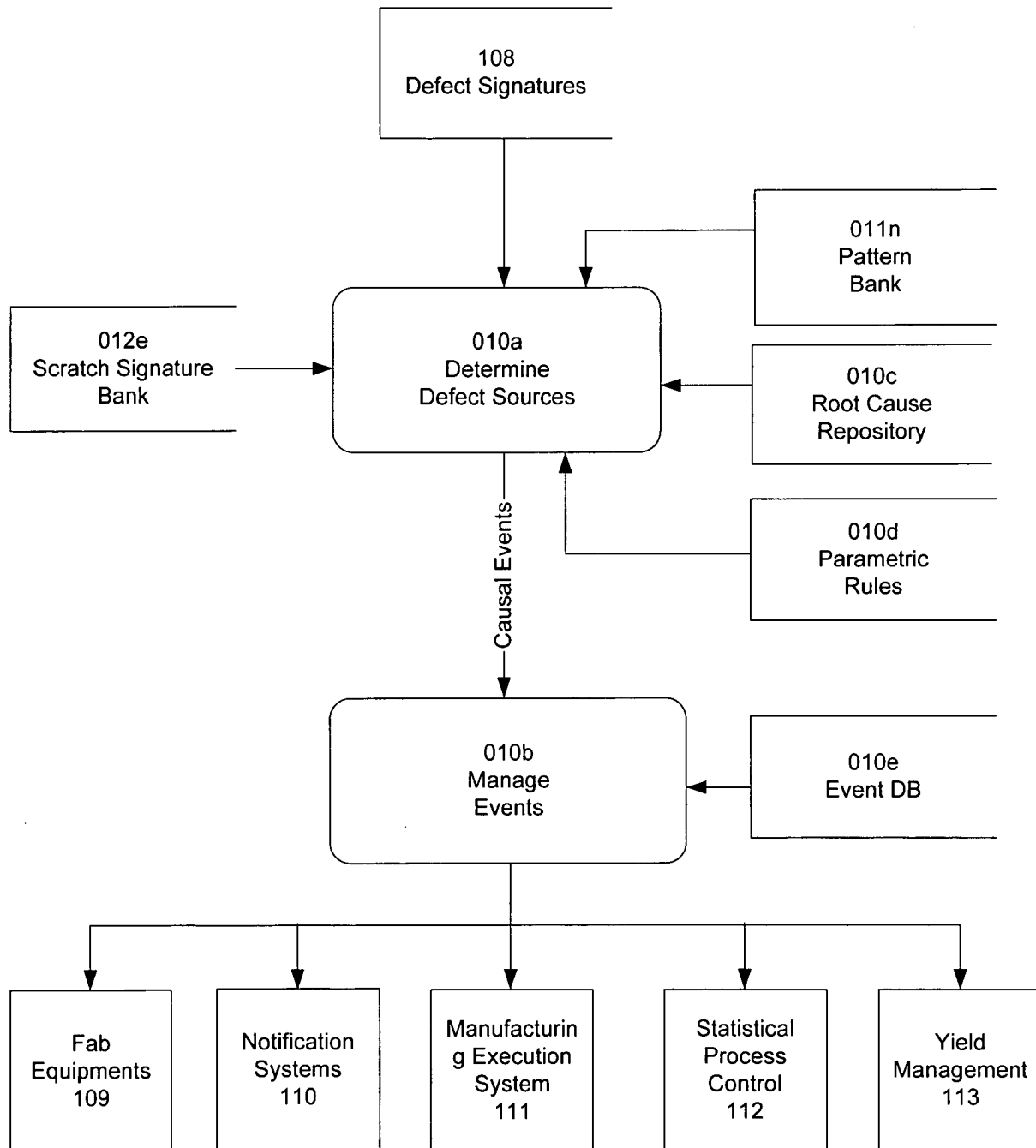


Figure 9

011 Generate Pattern Bank

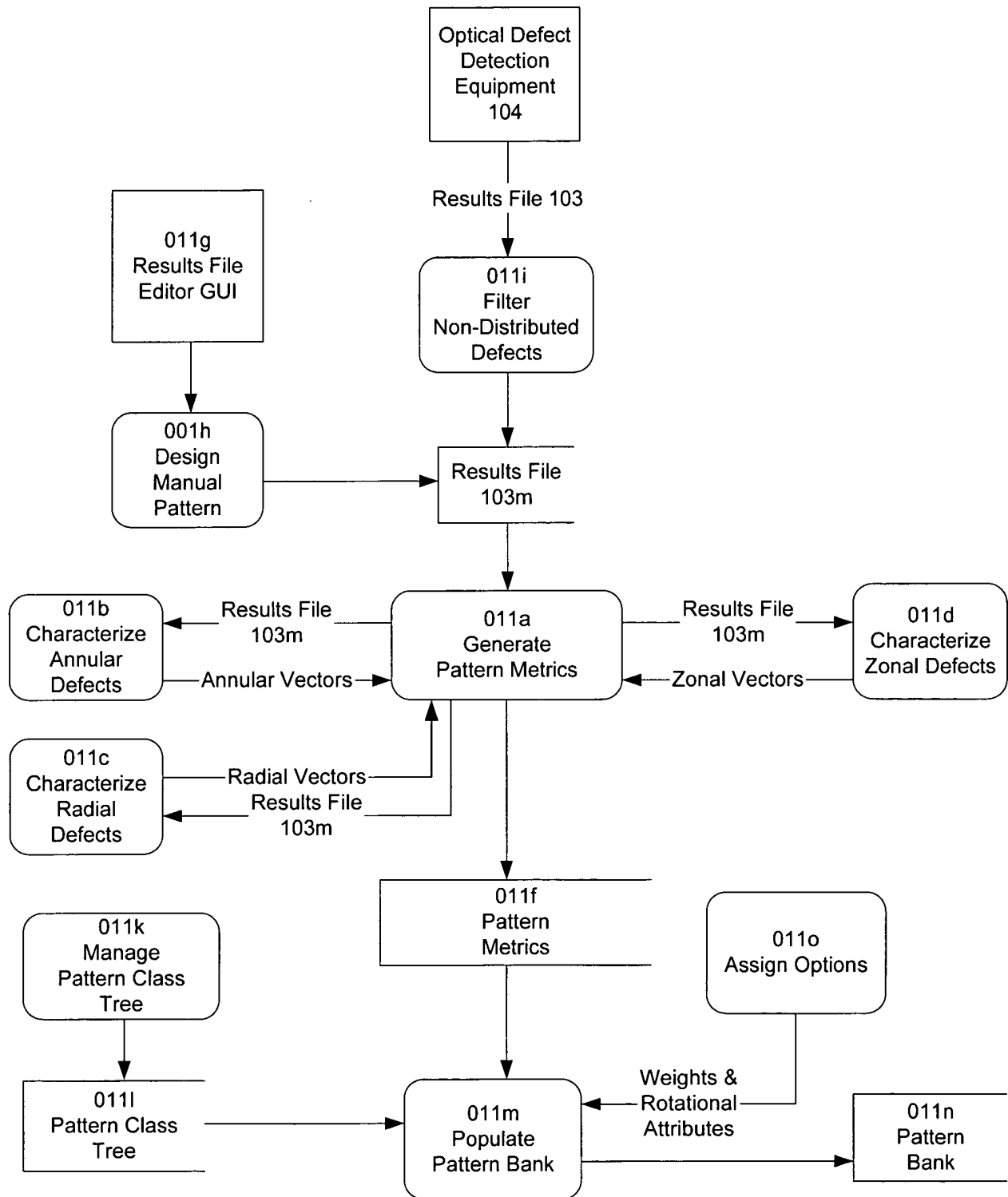


Figure 10

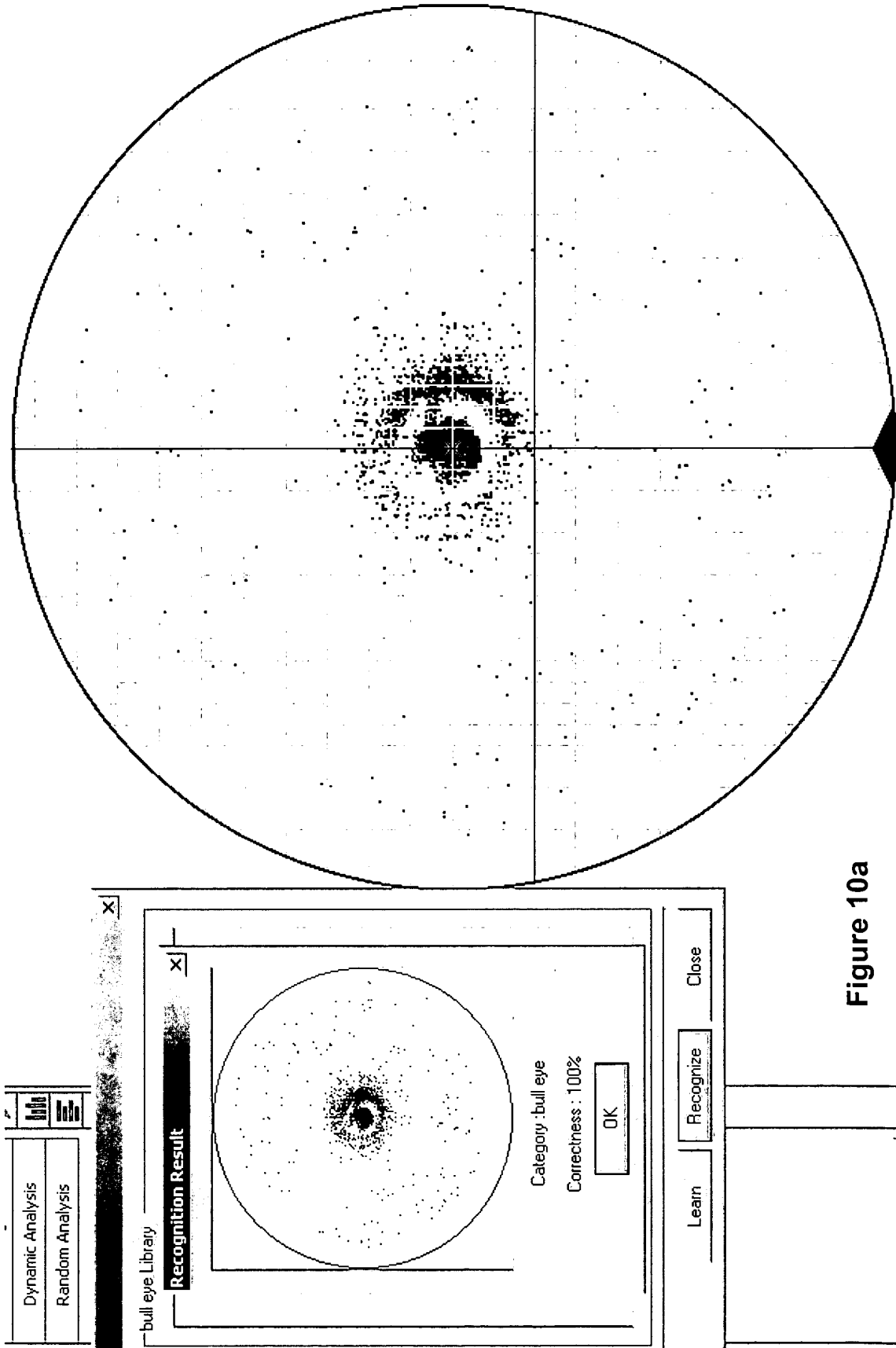


Figure 10a

012
Generate Scratch Signature Bank

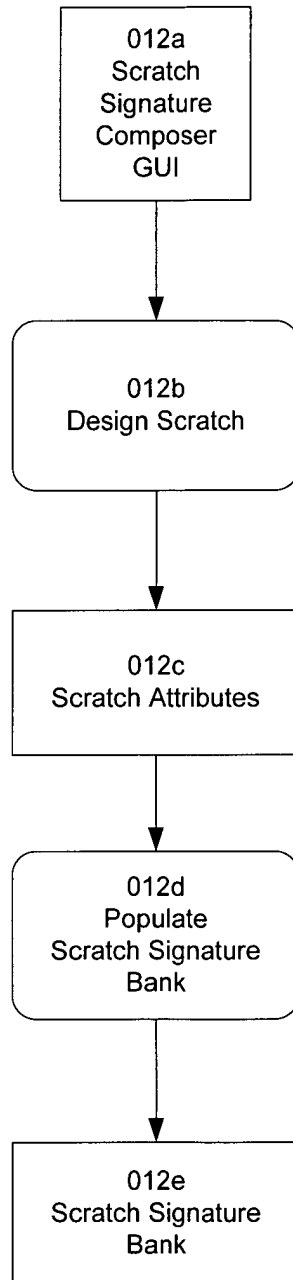


Figure 10b

Automated Defect Sourcing GUI Components

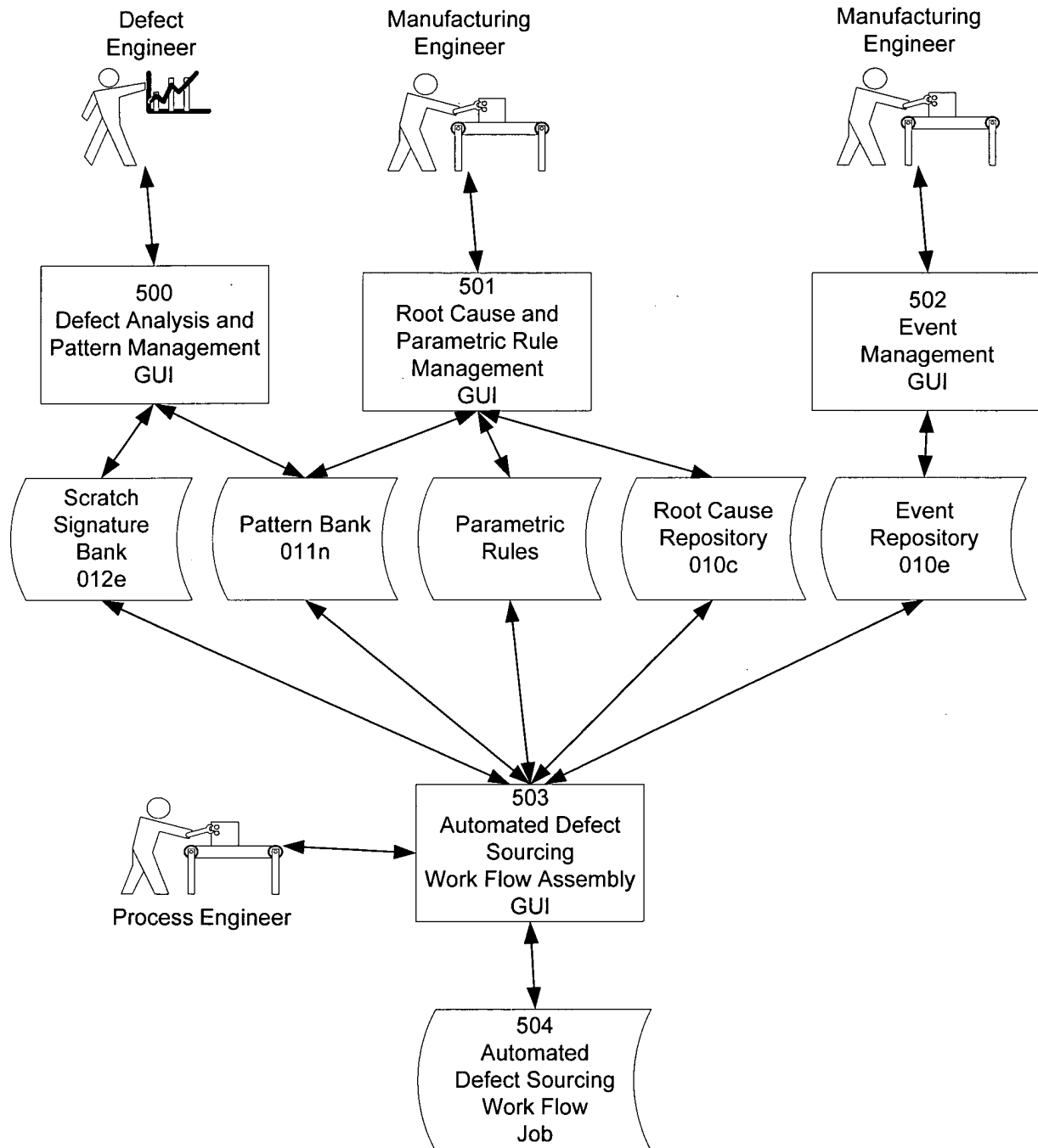


Figure 11

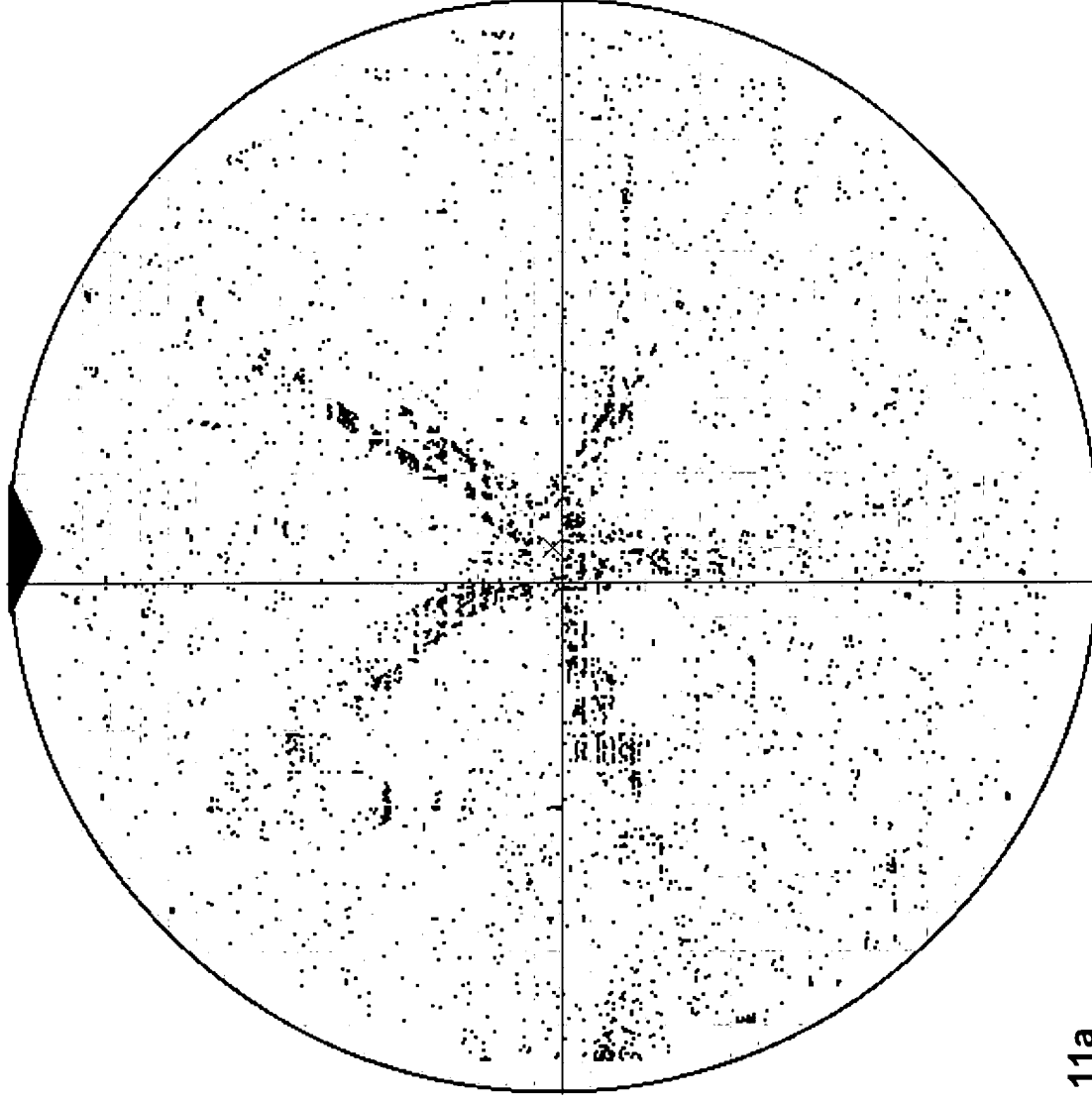
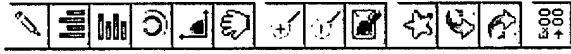


Figure 11a

Rotation Angle : 0°

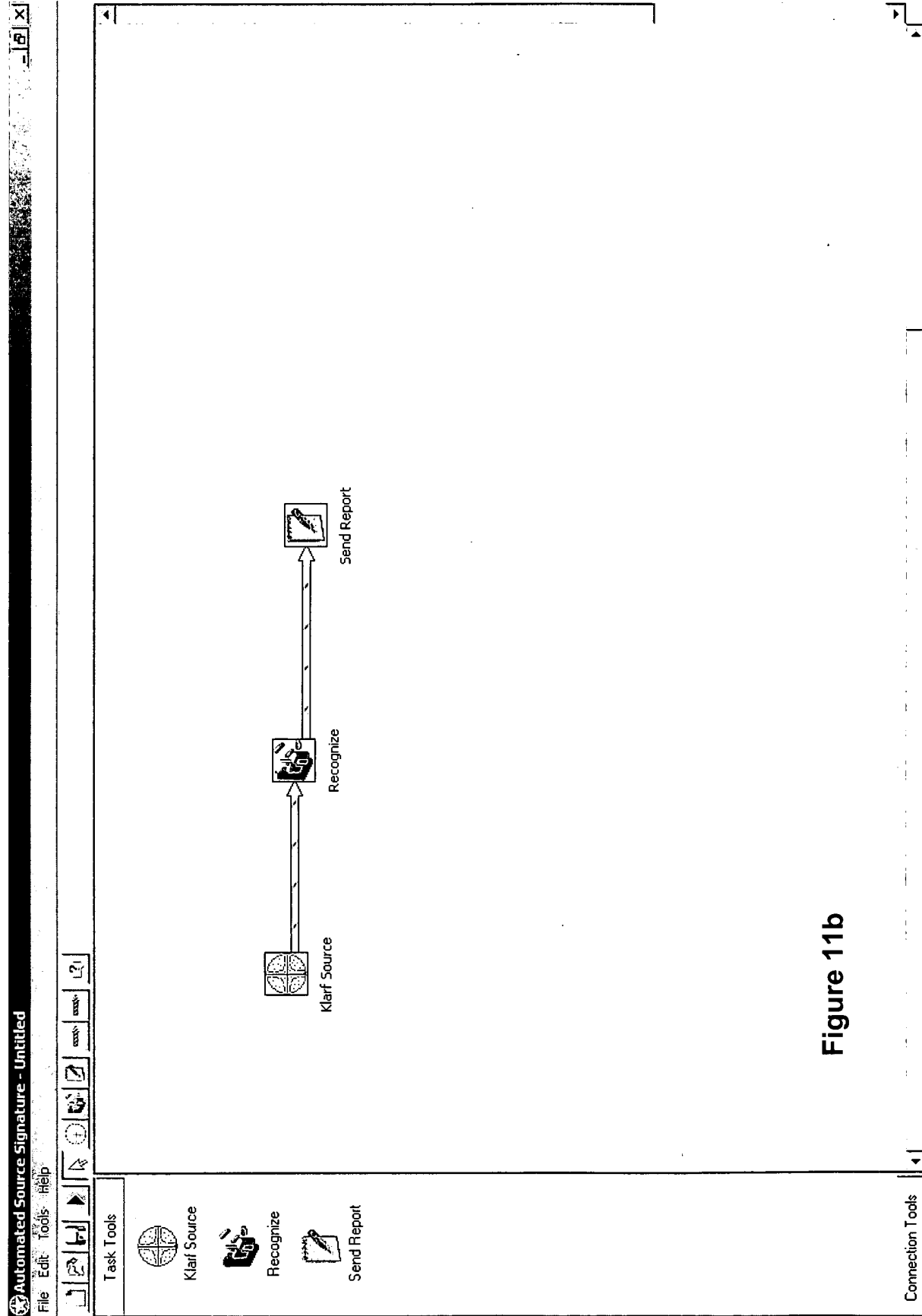


Figure 11b